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FIG. 1

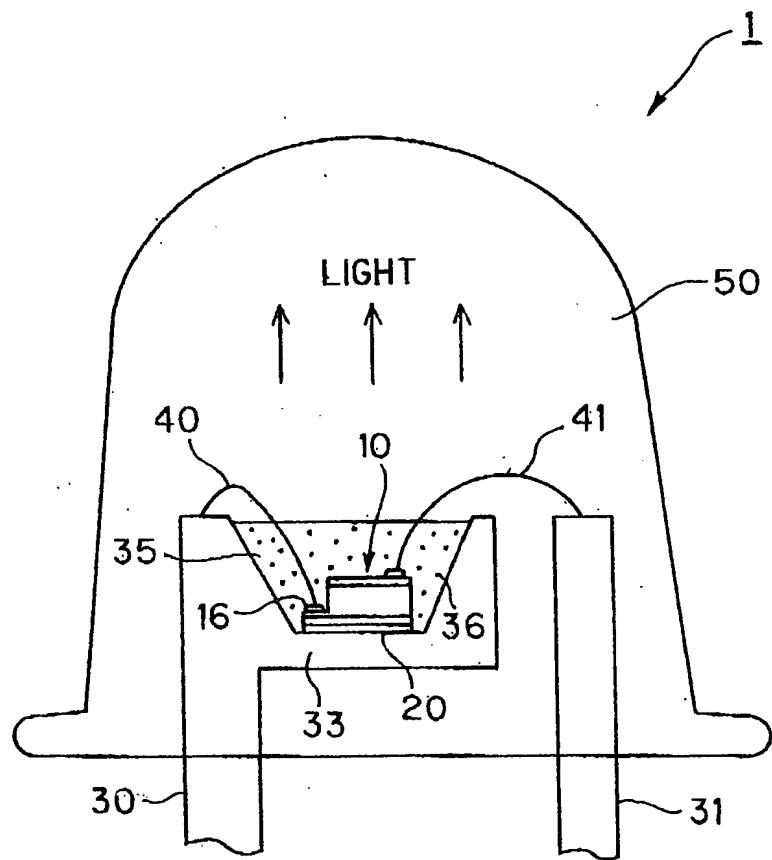


FIG. 2

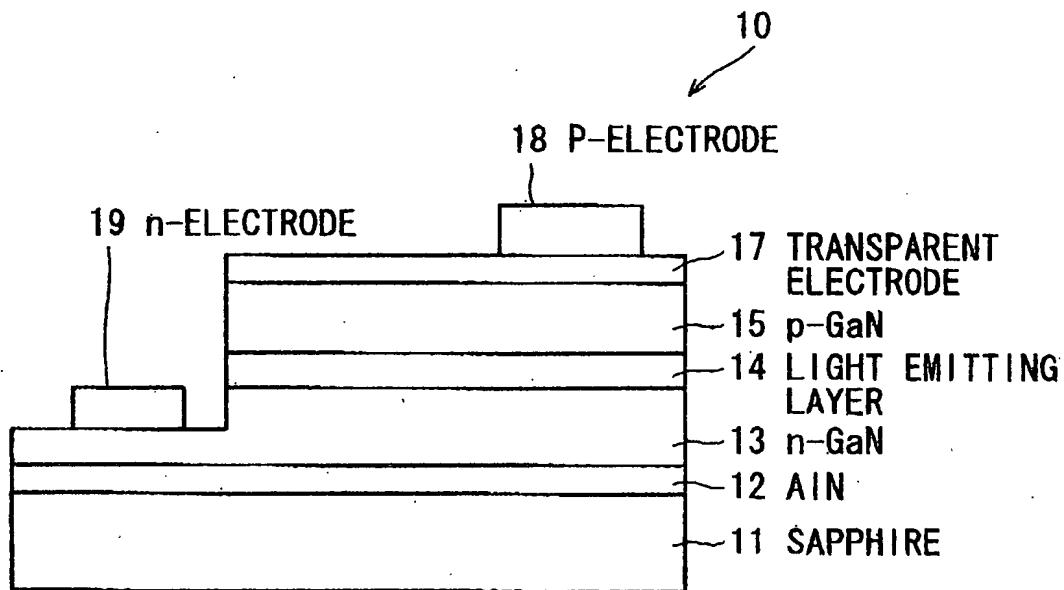


FIG. 3

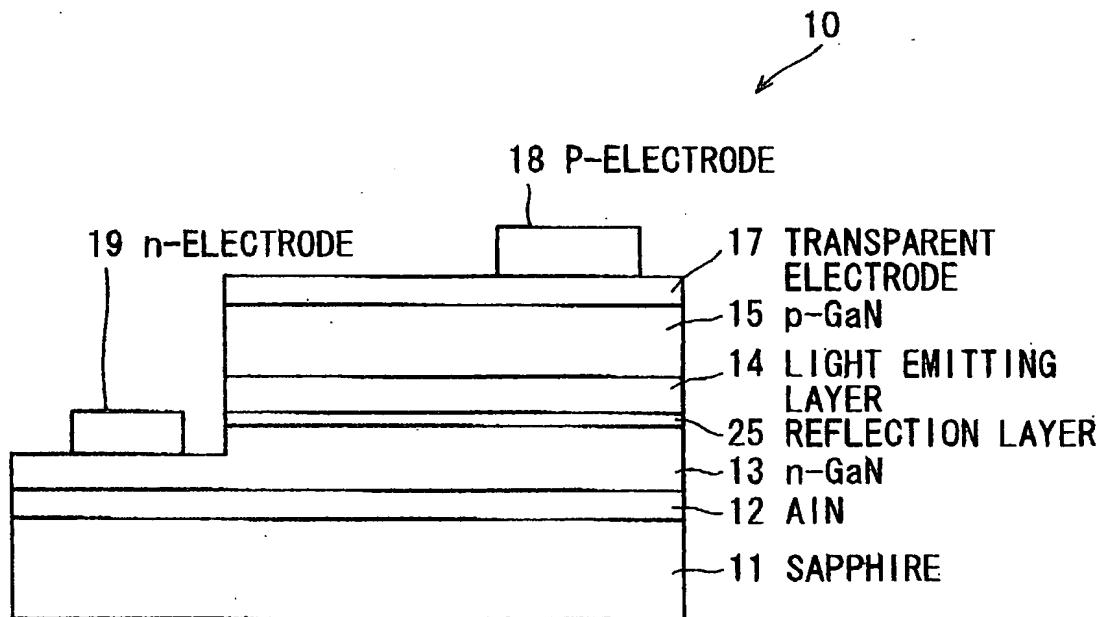


FIG. 4

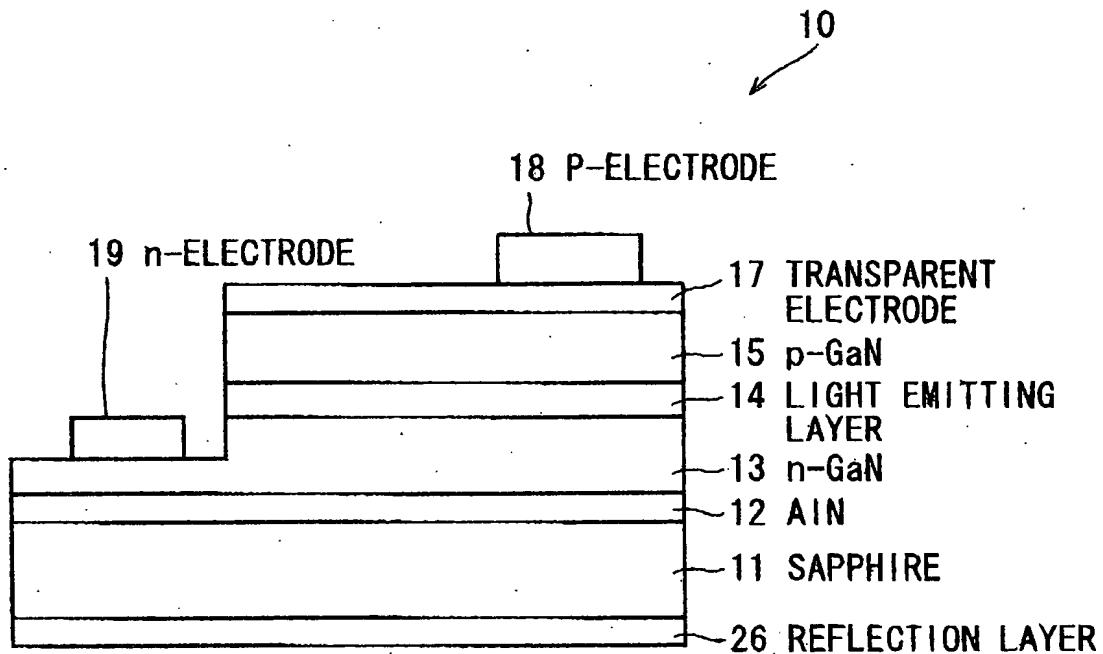
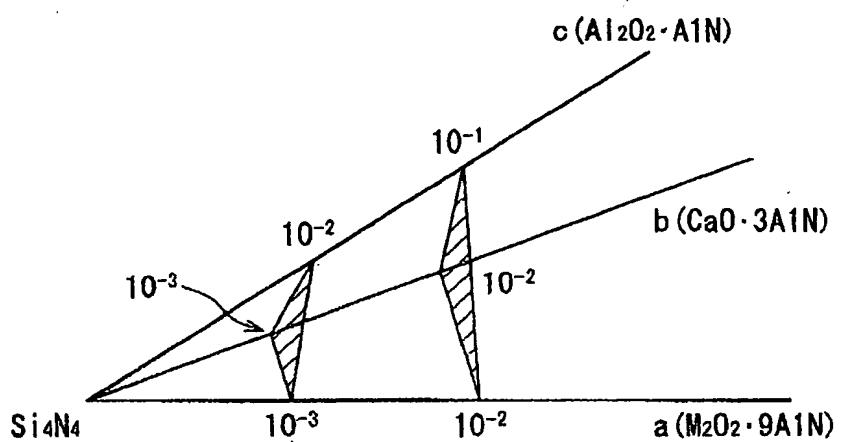
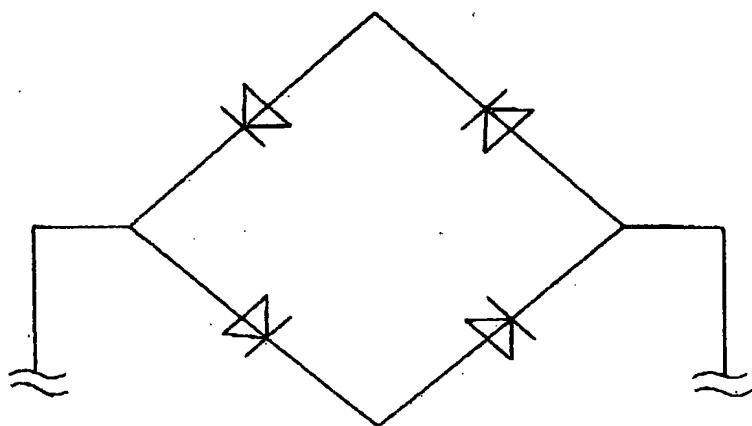


FIG. 5



**FIG. 6A**



**FIG. 6B**

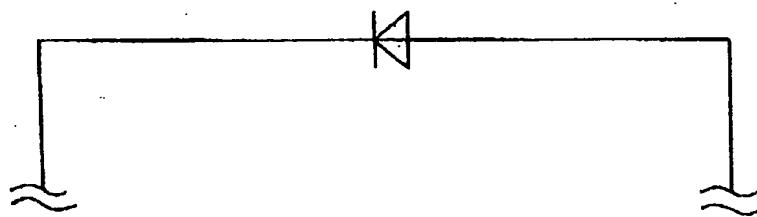


FIG. 7A

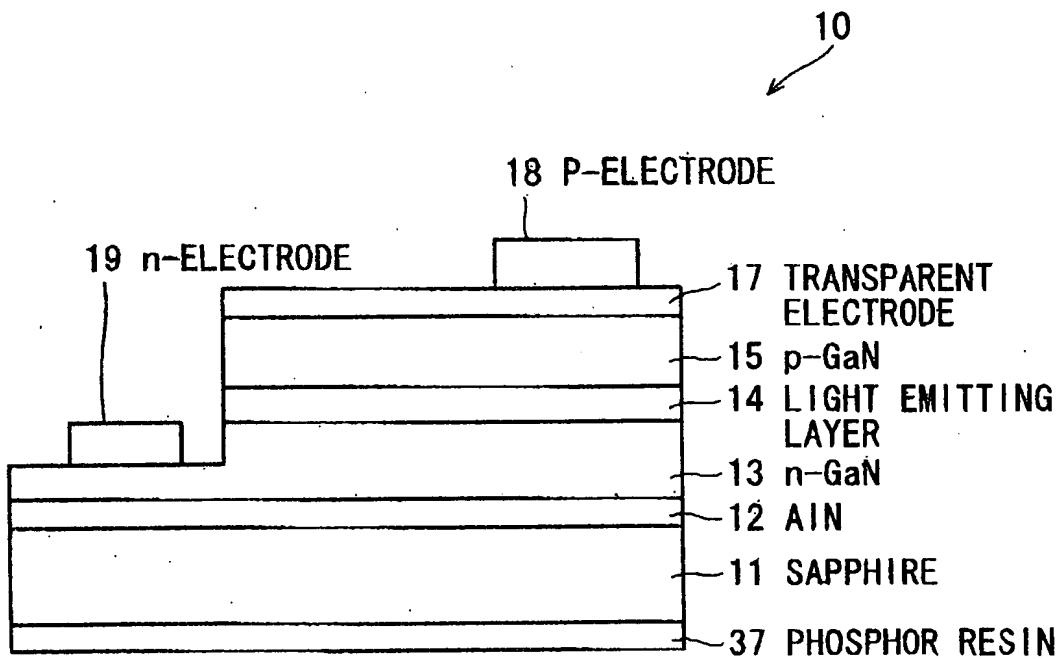


FIG. 7B

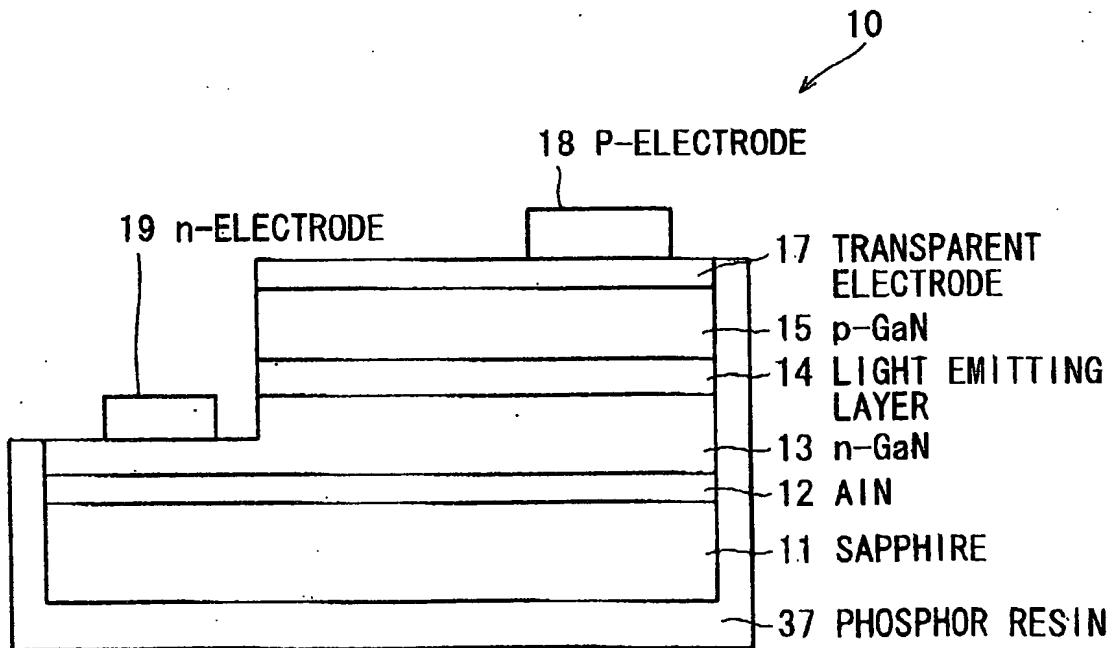
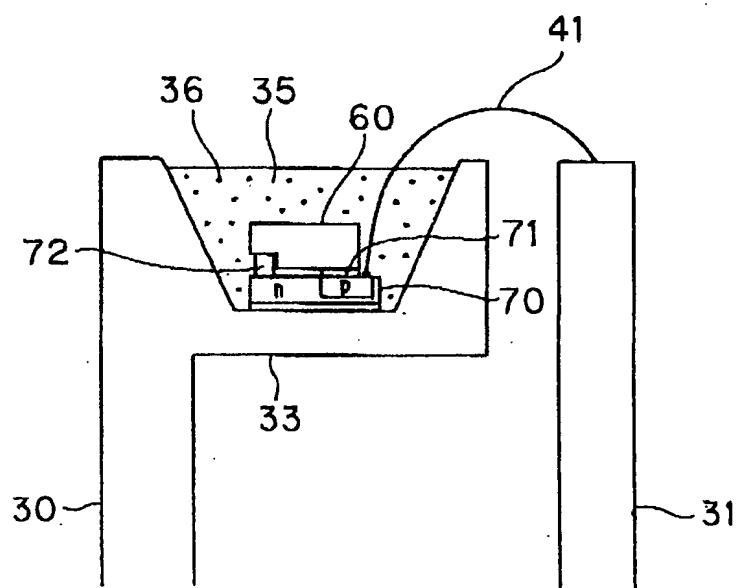
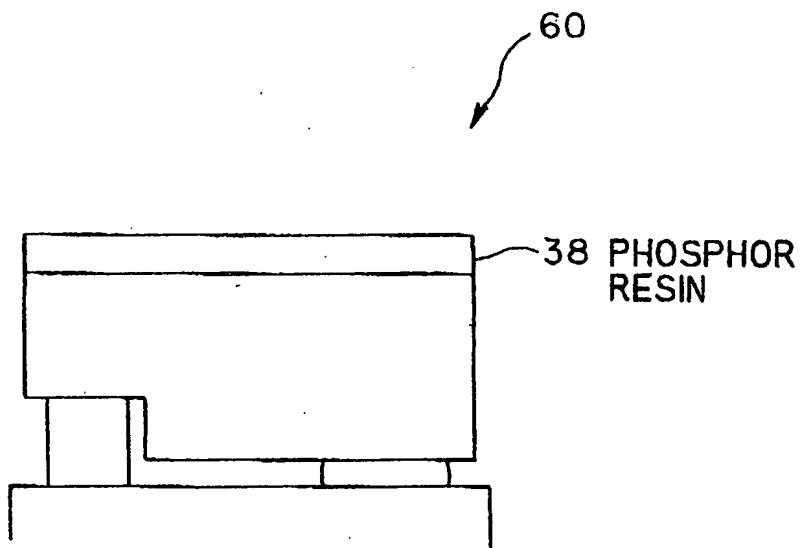


FIG. 8

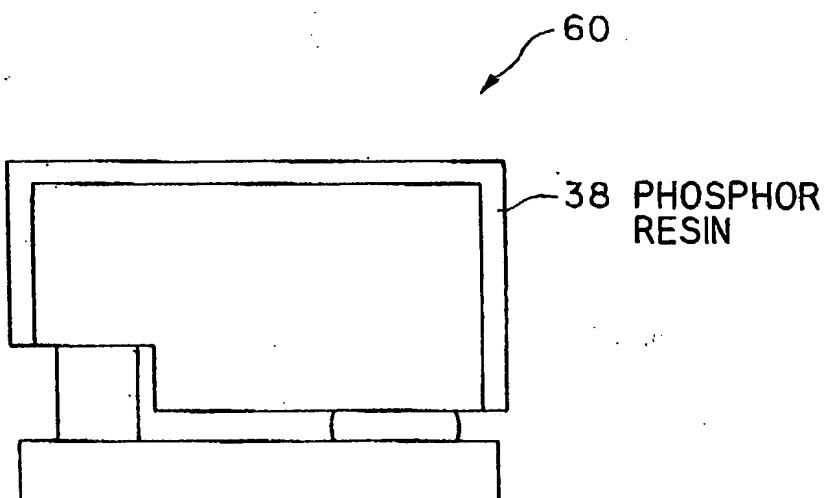


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**FIG. 9A**

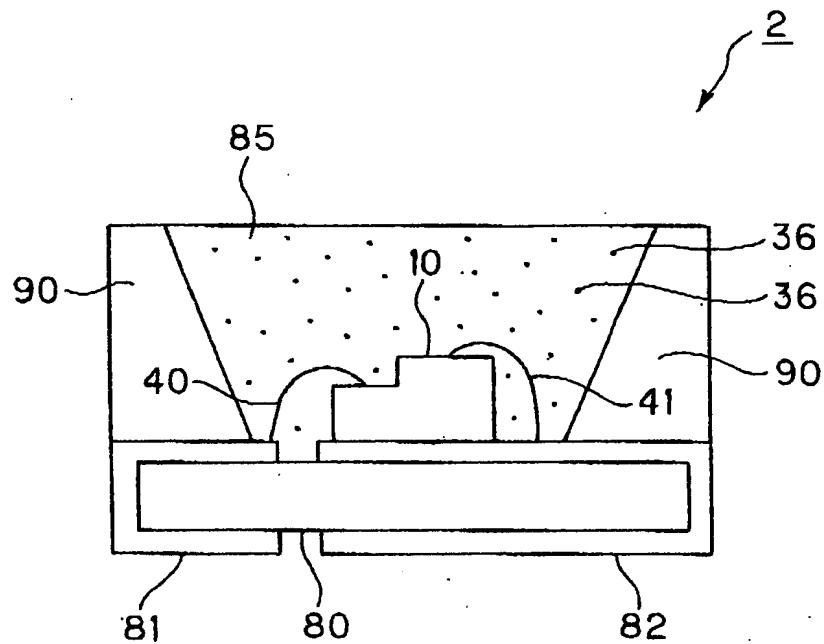


**FIG. 9B**

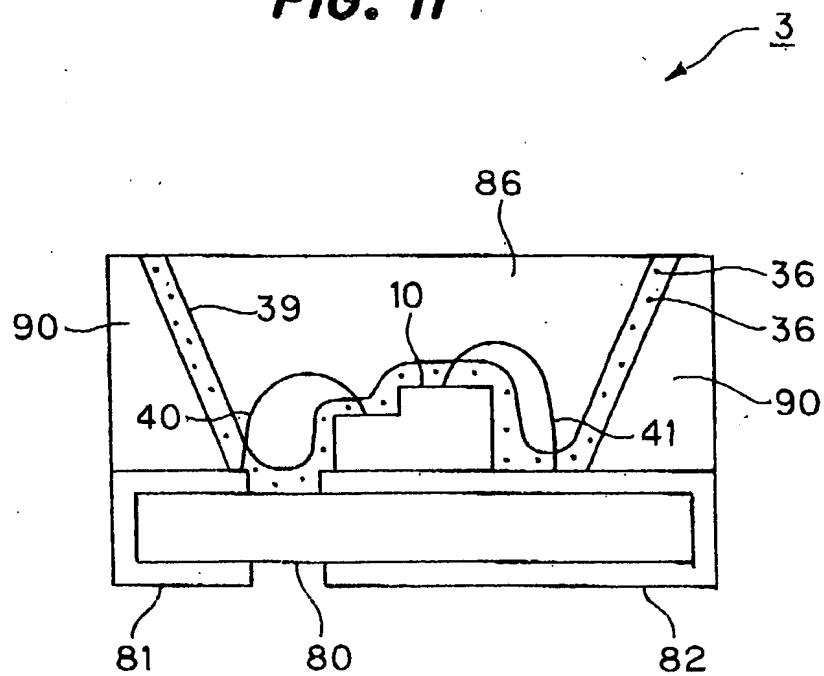


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**FIG. 10**

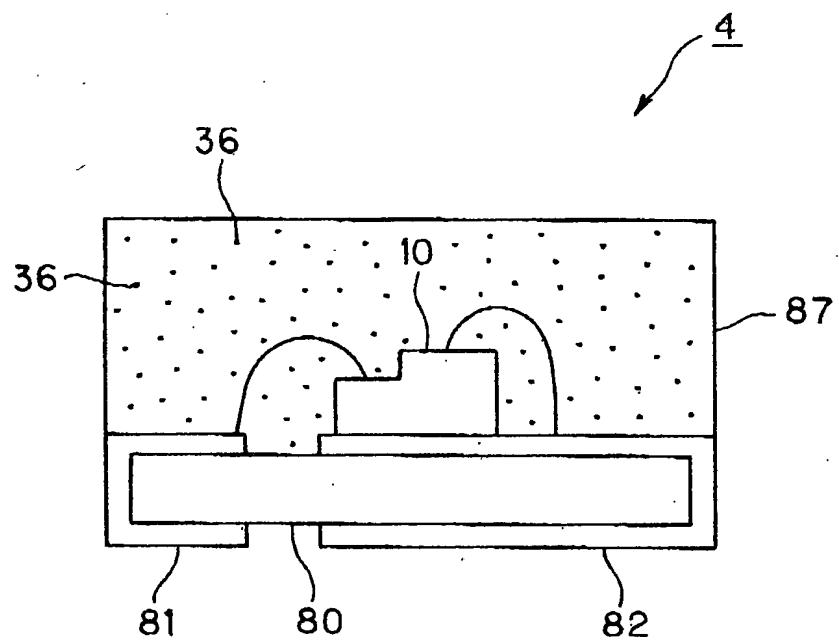


**FIG. 11**

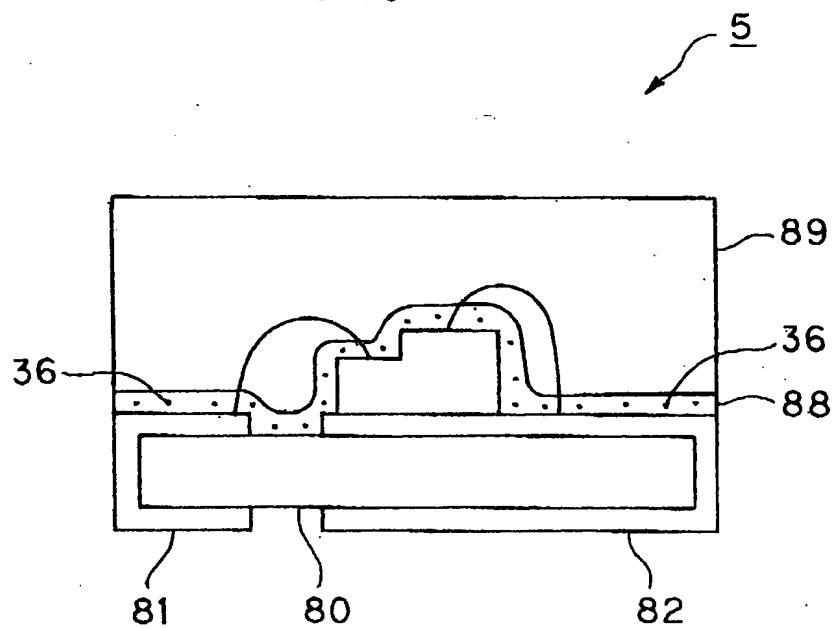


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**FIG. 12**

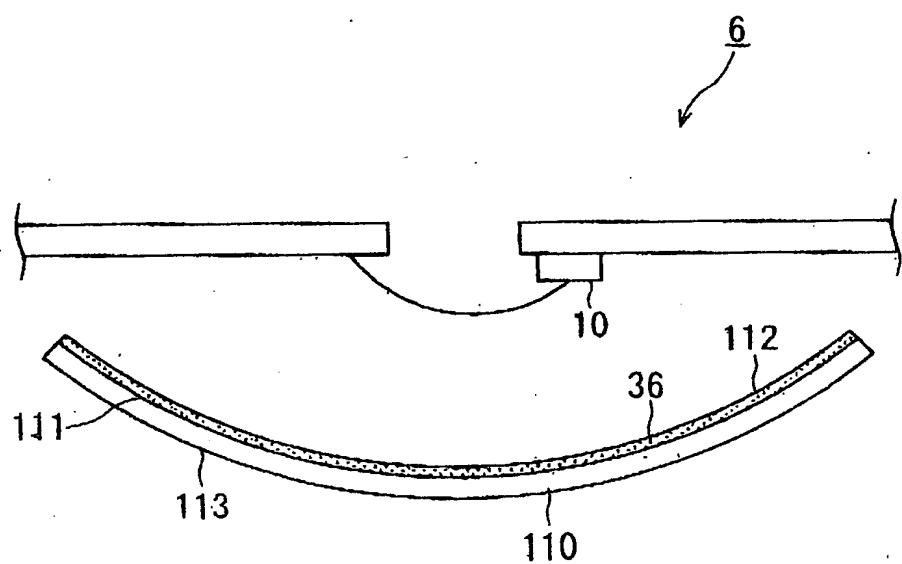


**FIG. 13**



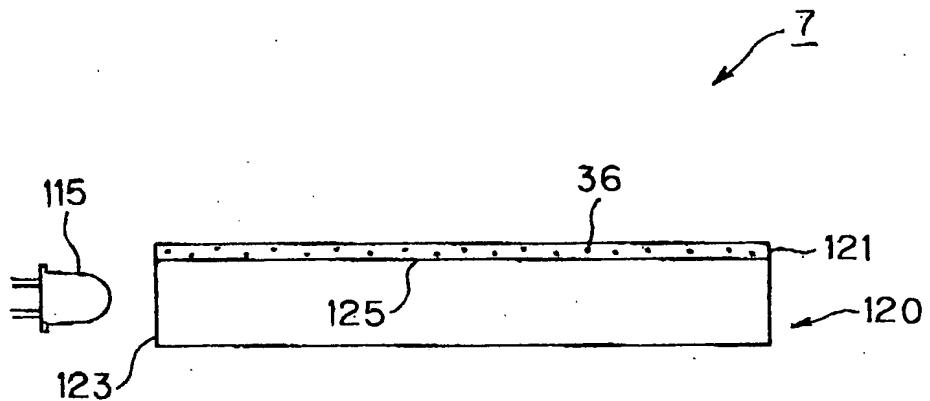
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FIG. 14

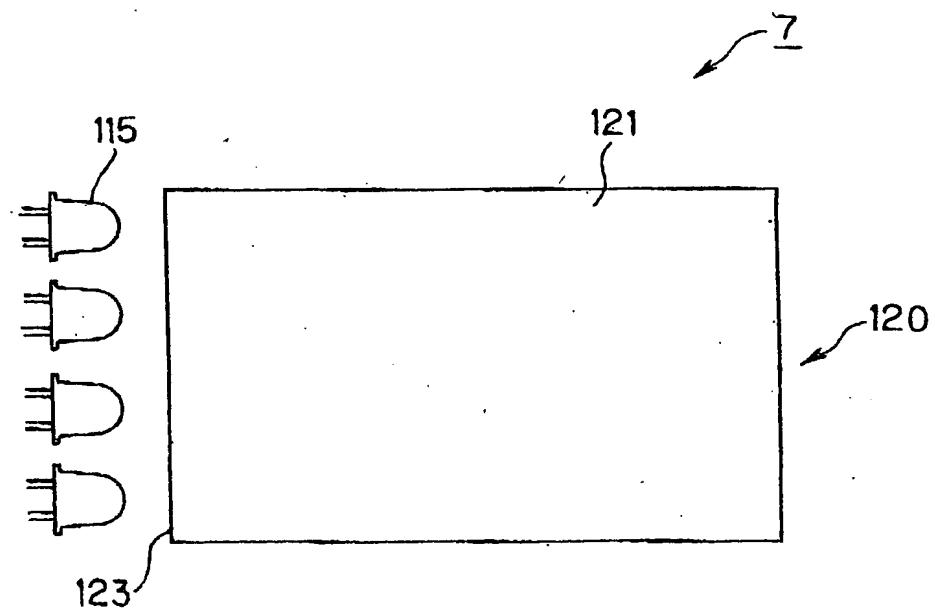


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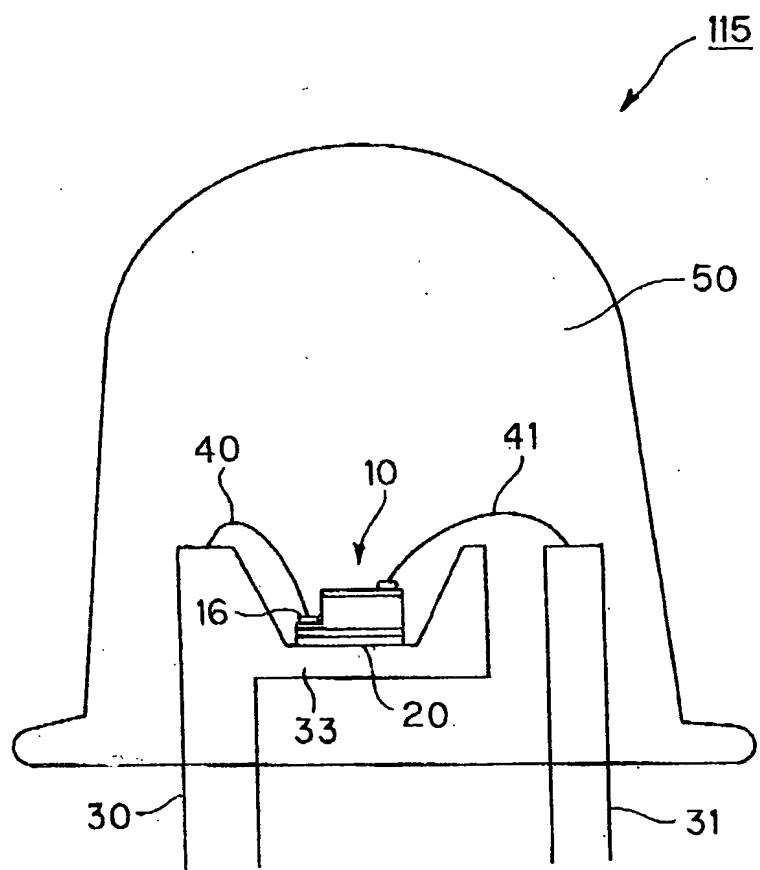
**FIG. 15A**



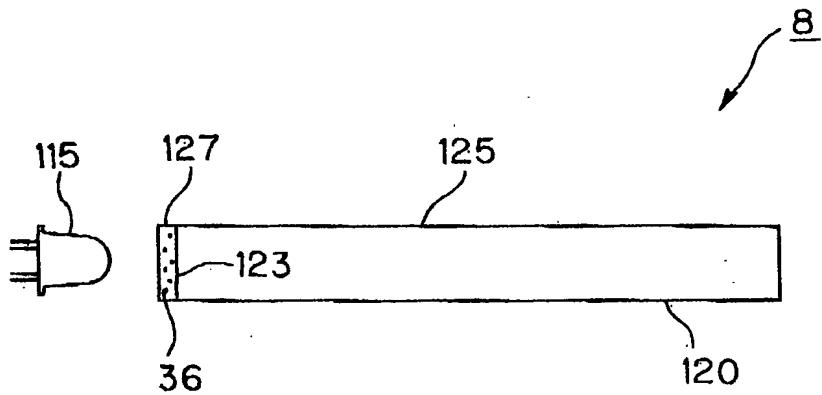
**FIG. 15B**



**FIG. 16**



**FIG. 17A**



**FIG. 17B**

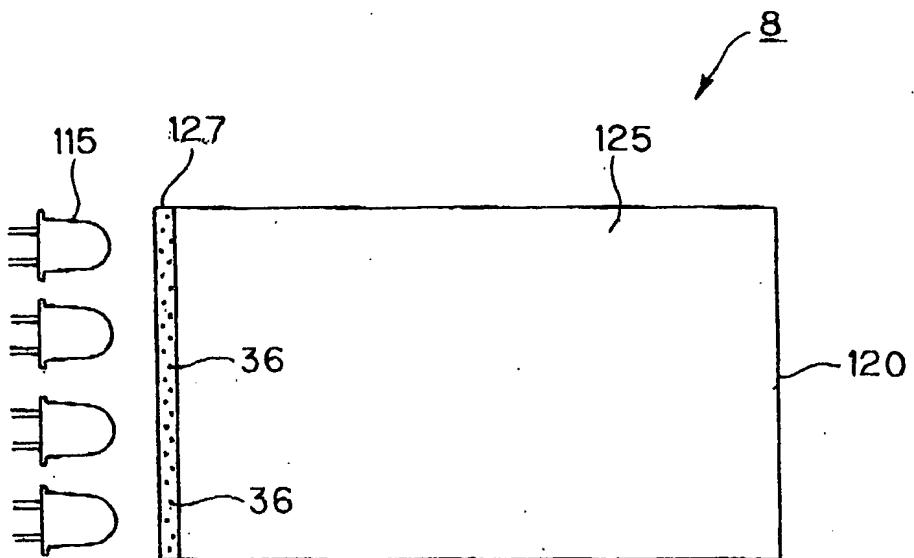


FIG. 18

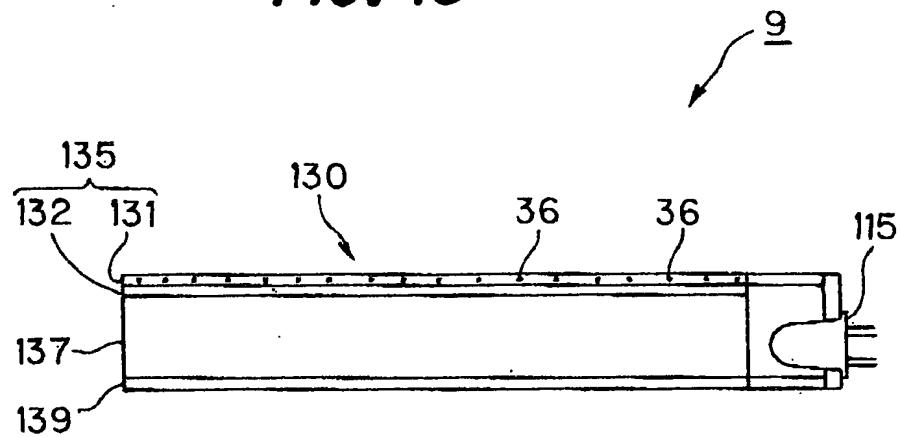
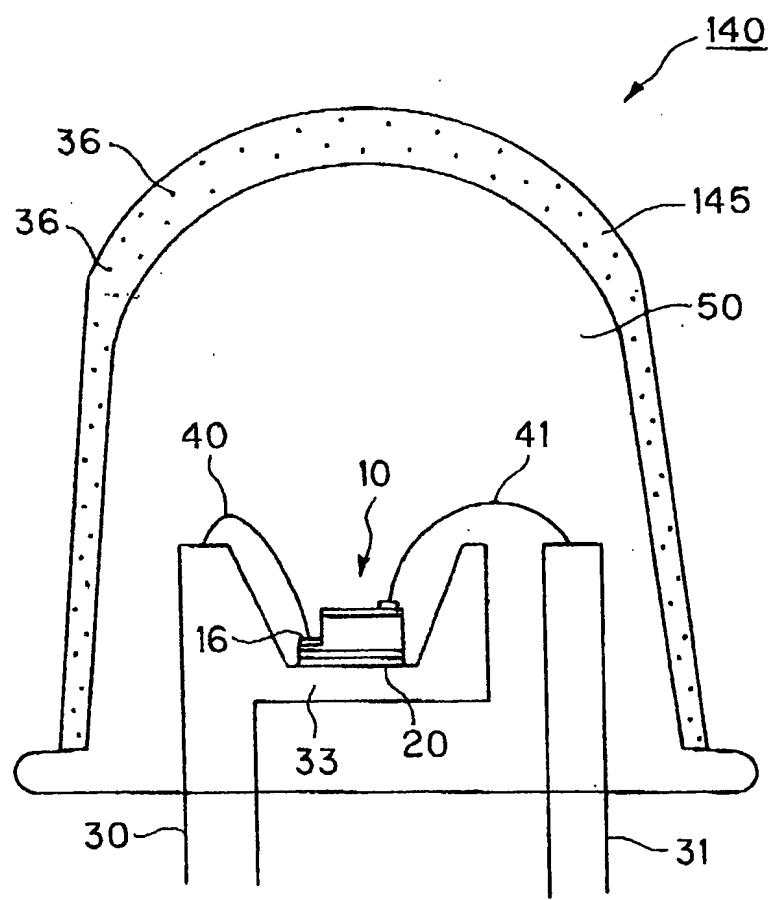
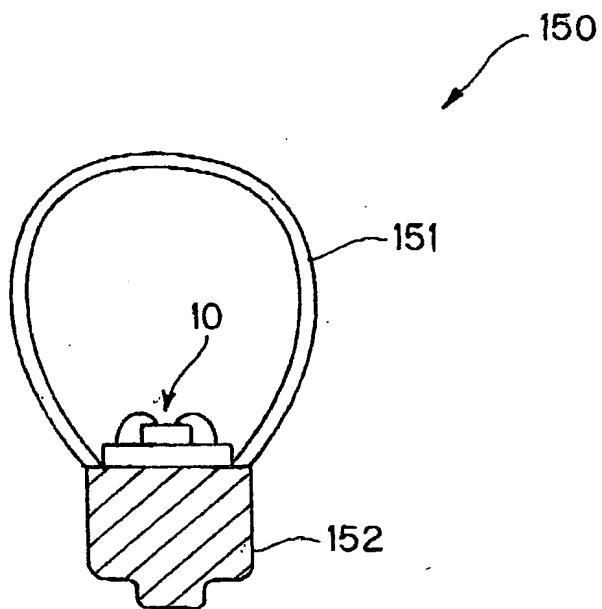


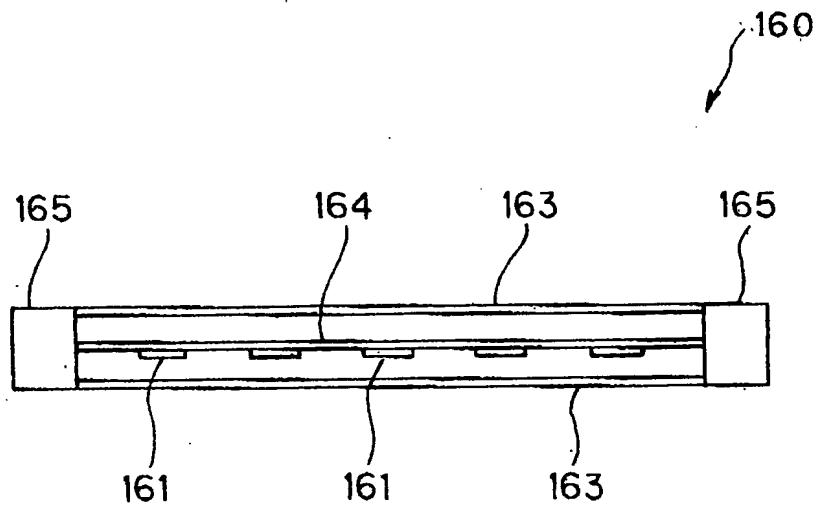
FIG. 19



**FIG. 20**

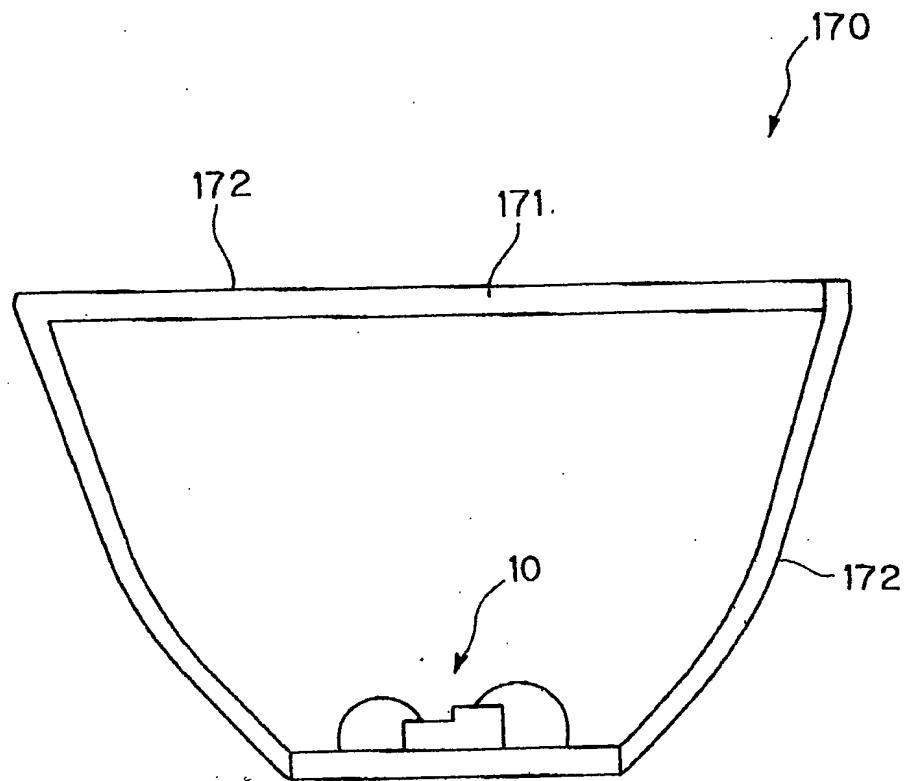


**FIG. 21**



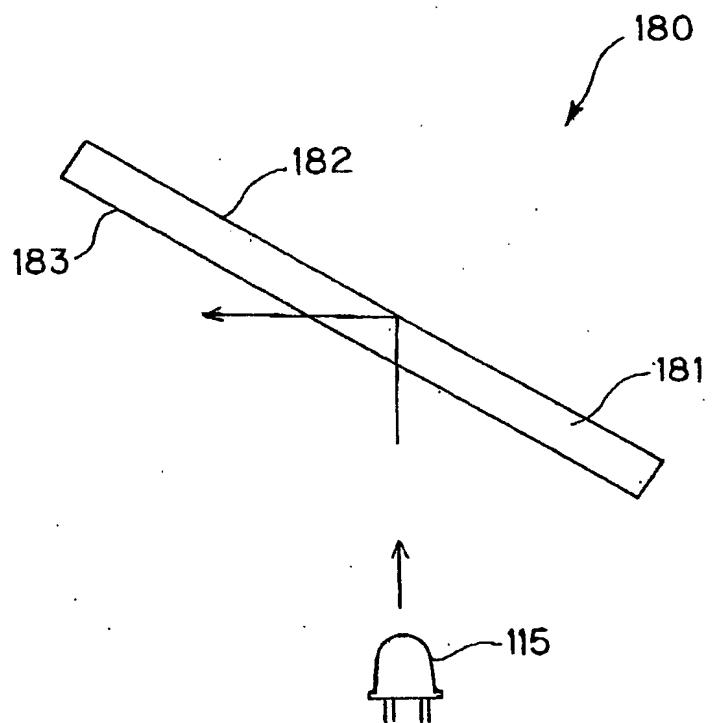
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**FIG. 22**



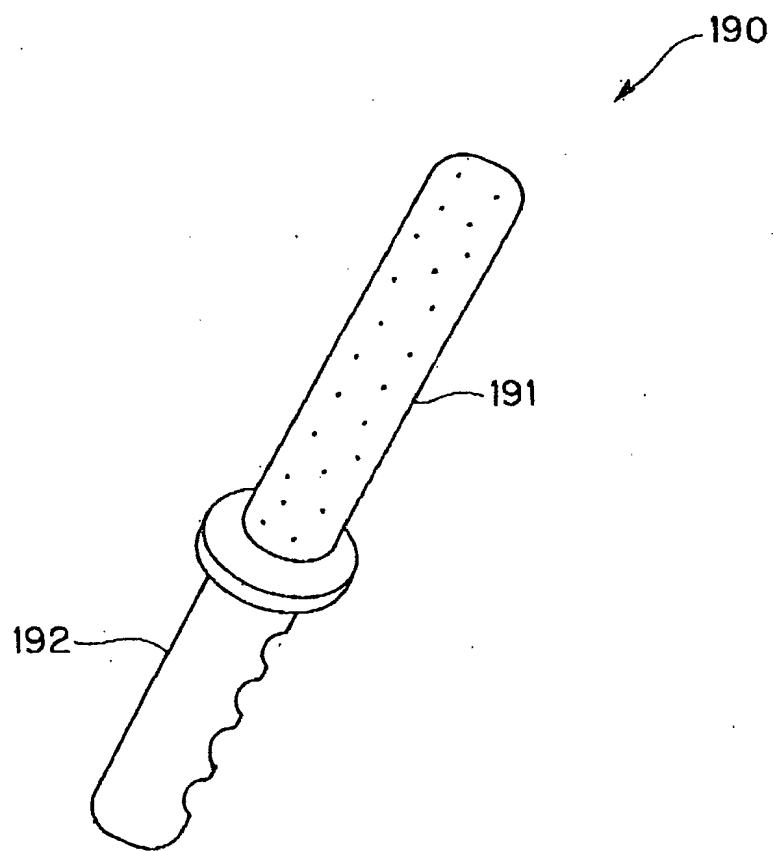
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**FIG. 23**

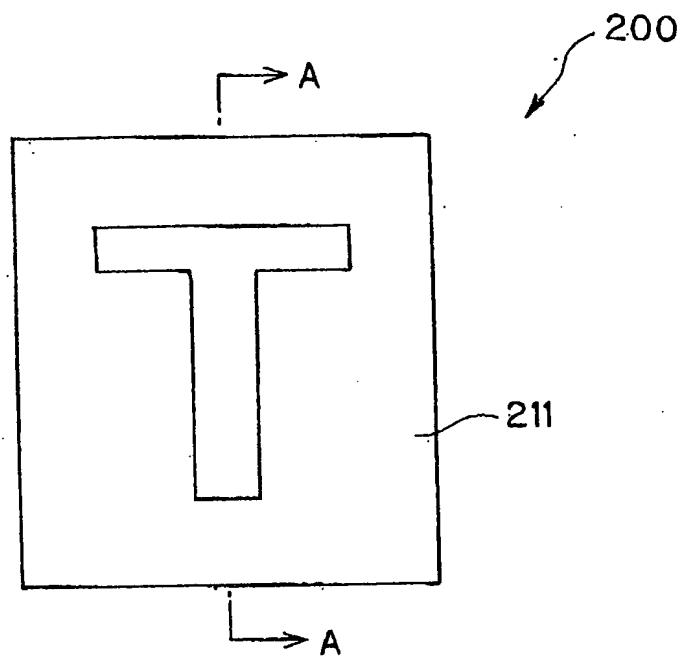


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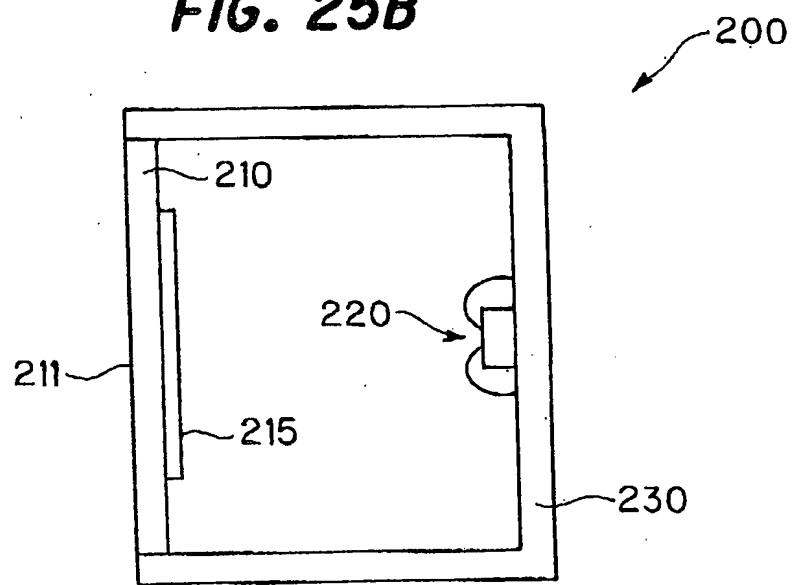
**FIG. 24**



**FIG. 25A**

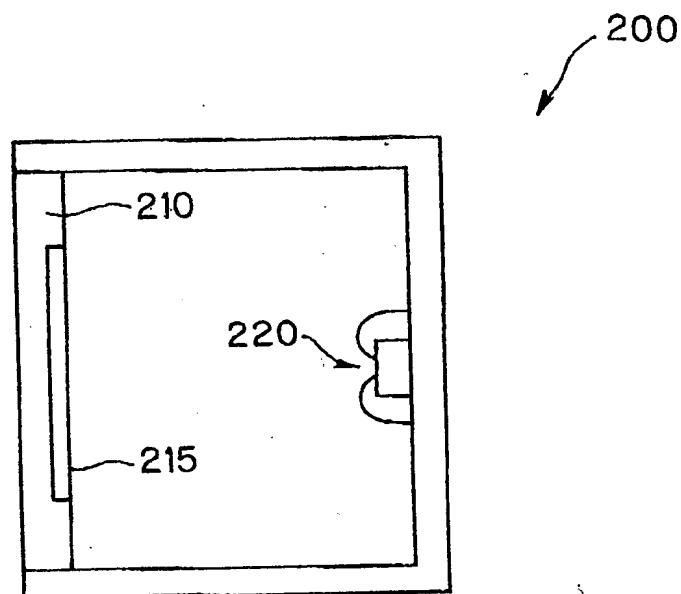


**FIG. 25B**

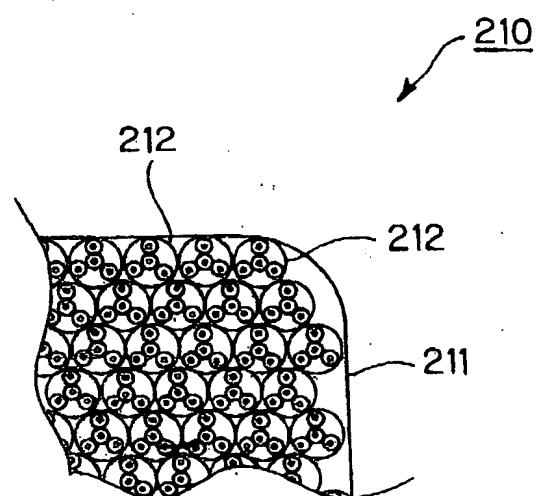


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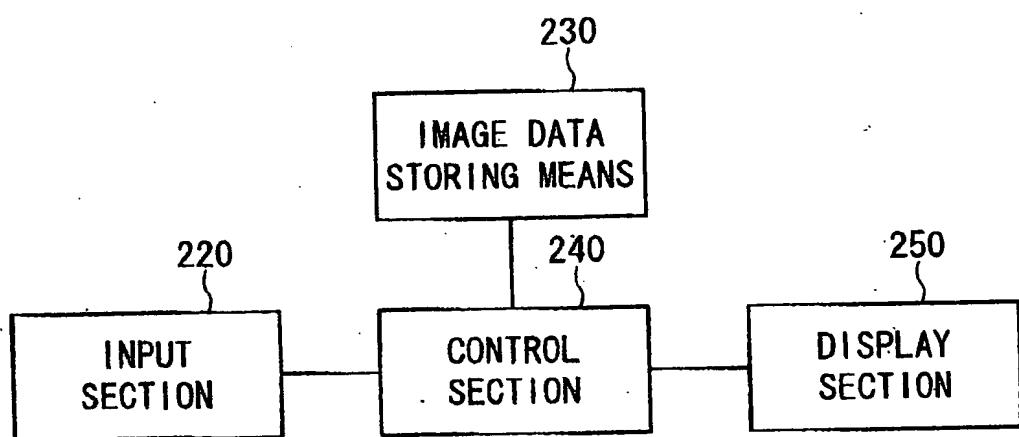
**FIG. 26**



**FIG. 27**



*FIG. 28*



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**FIG. 29**

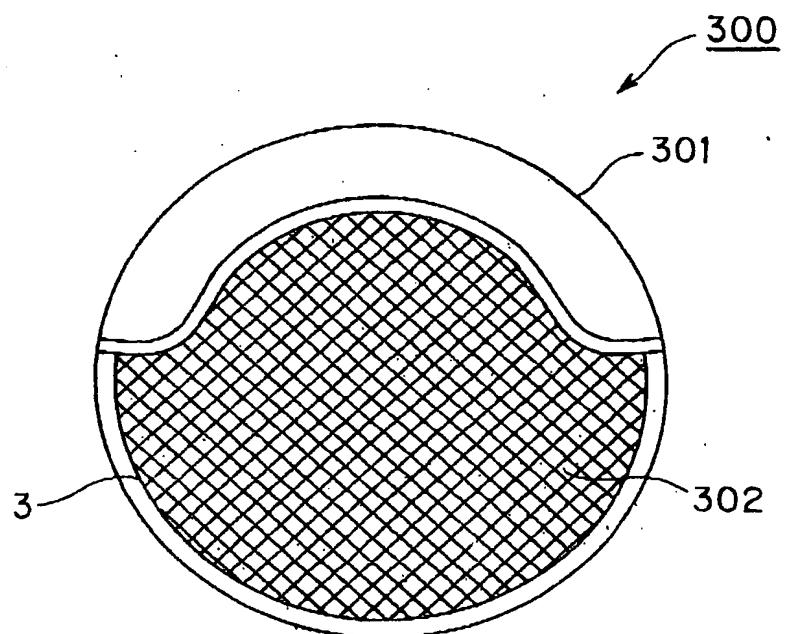


FIG. 30

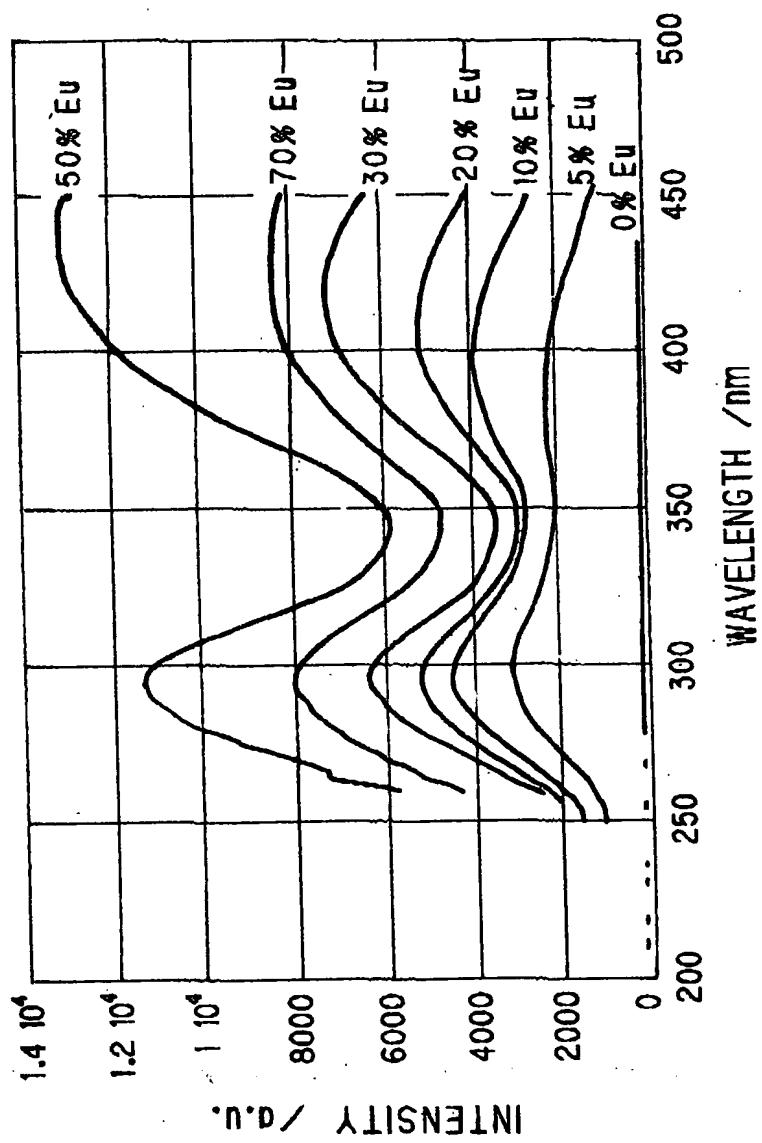
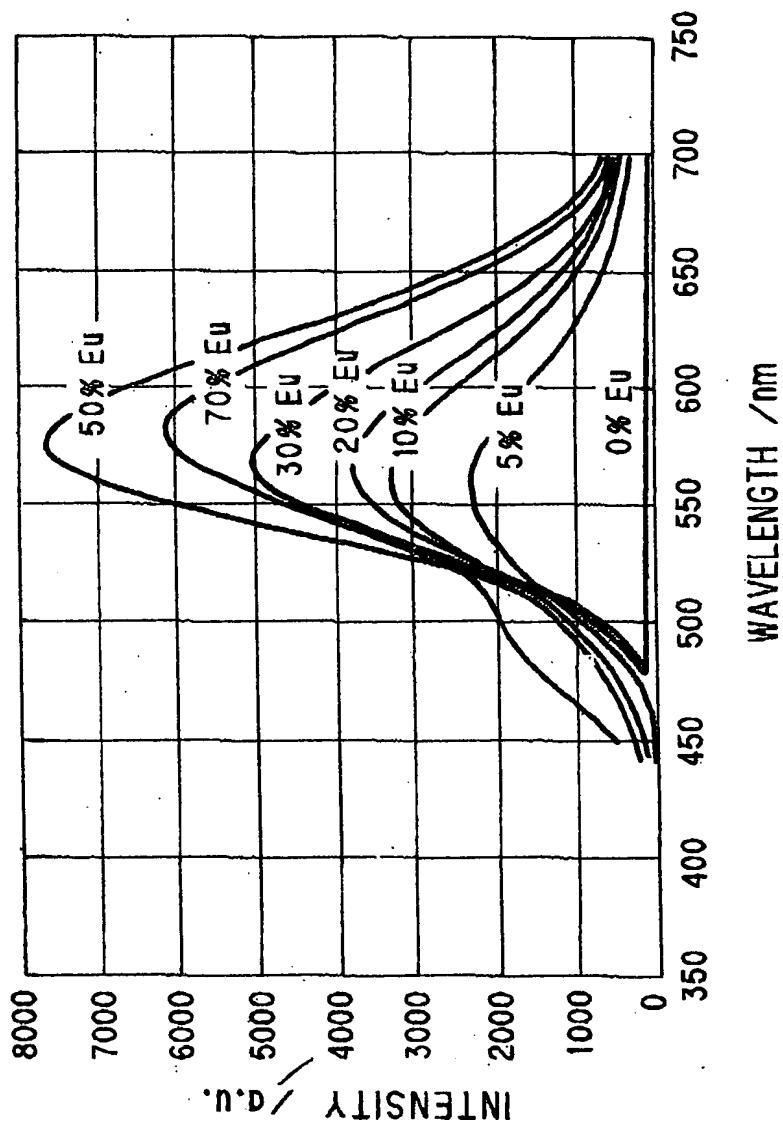
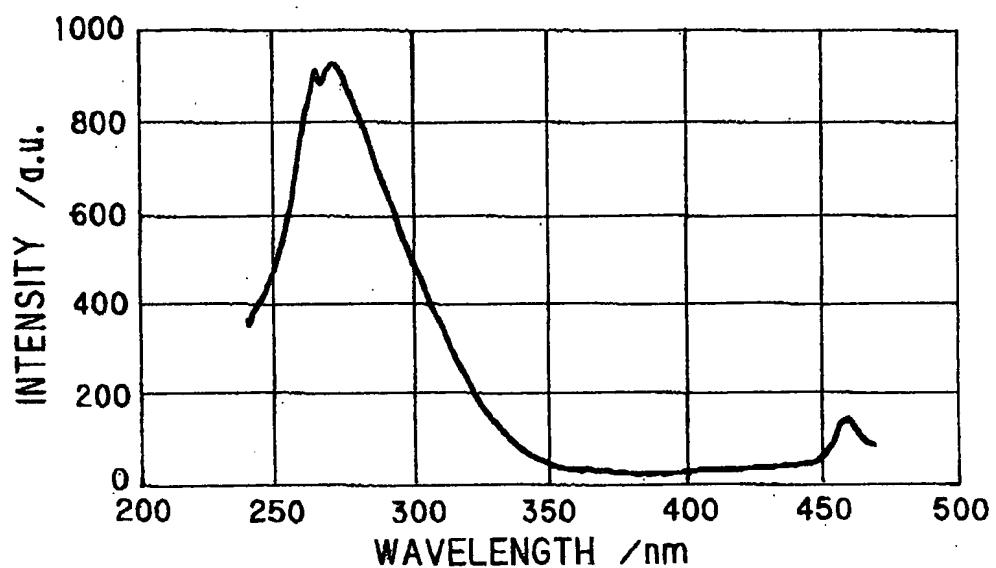


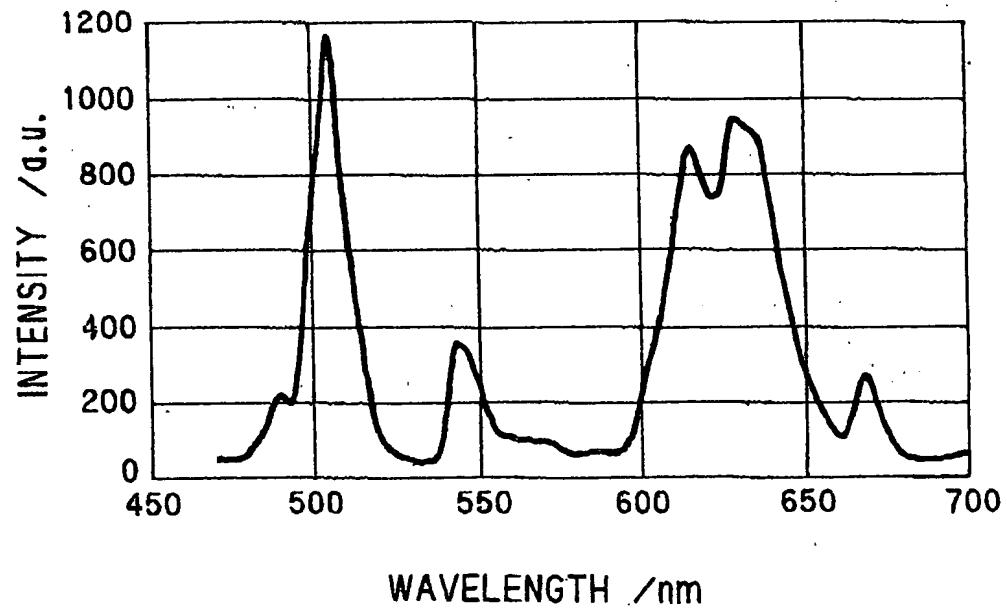
FIG. 31



**FIG. 32A**

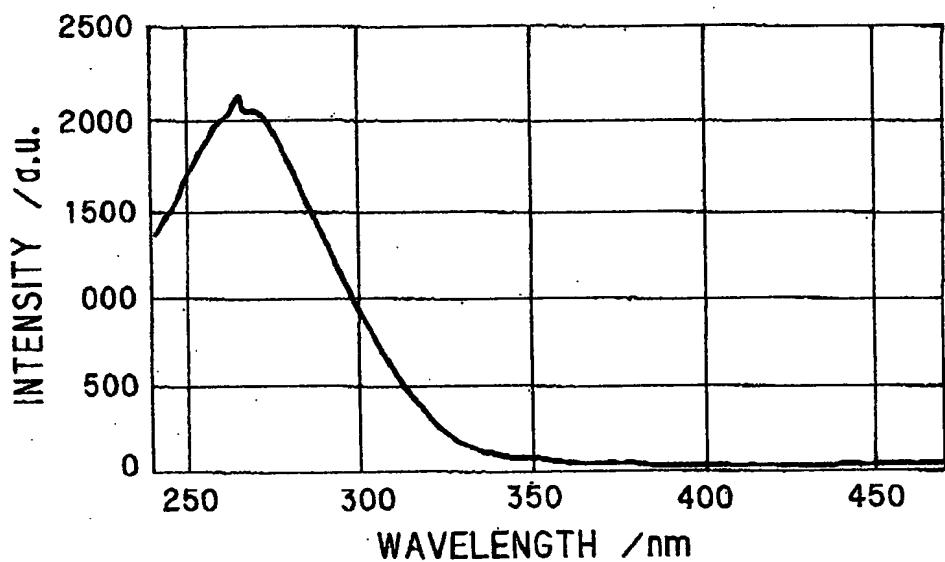


**FIG. 32B**

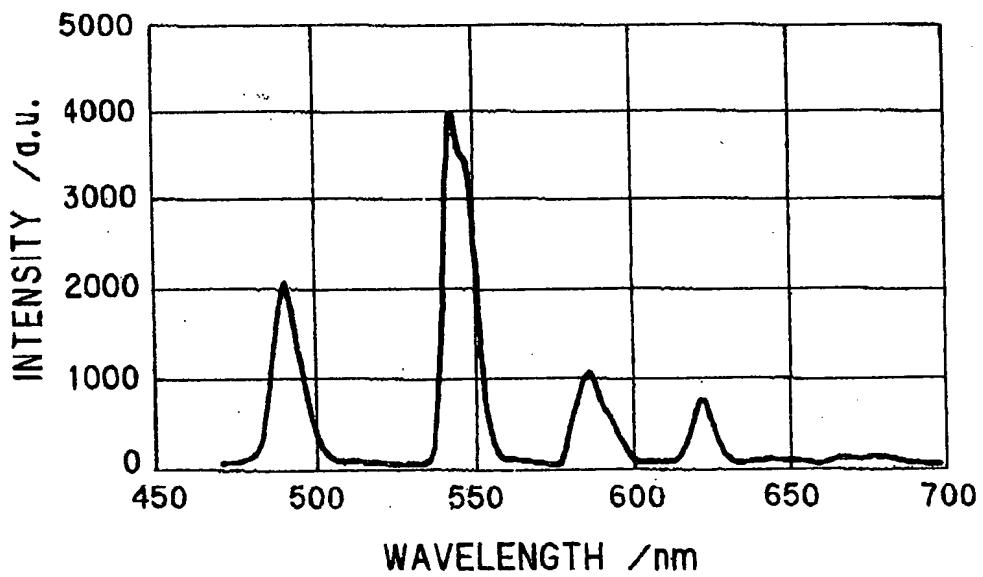


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**FIG. 33A**

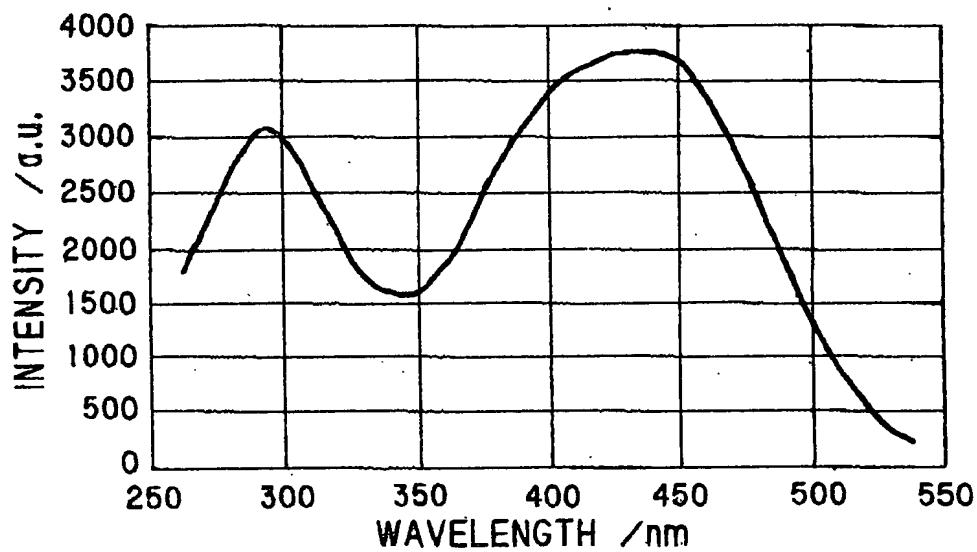


**FIG. 33B**

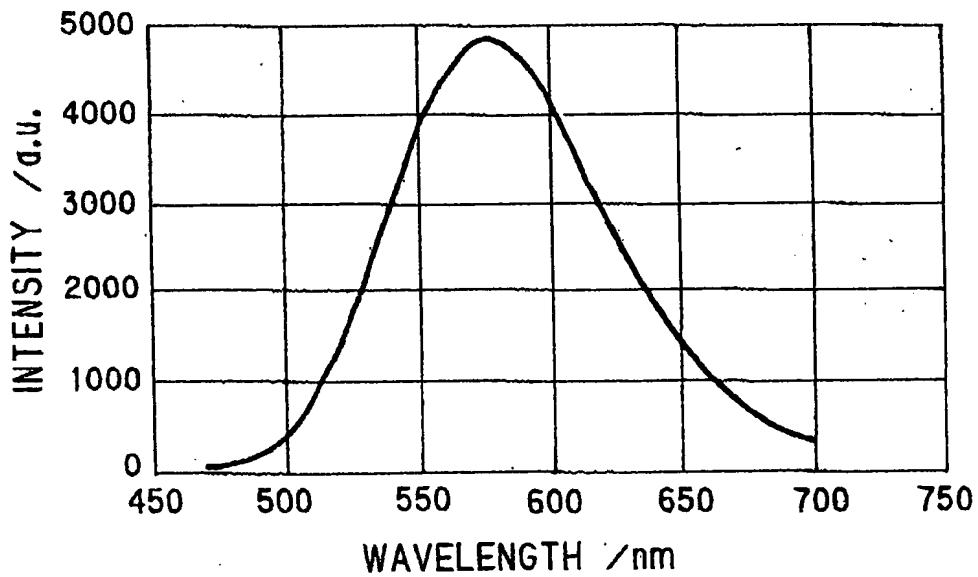


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**FIG. 34A**

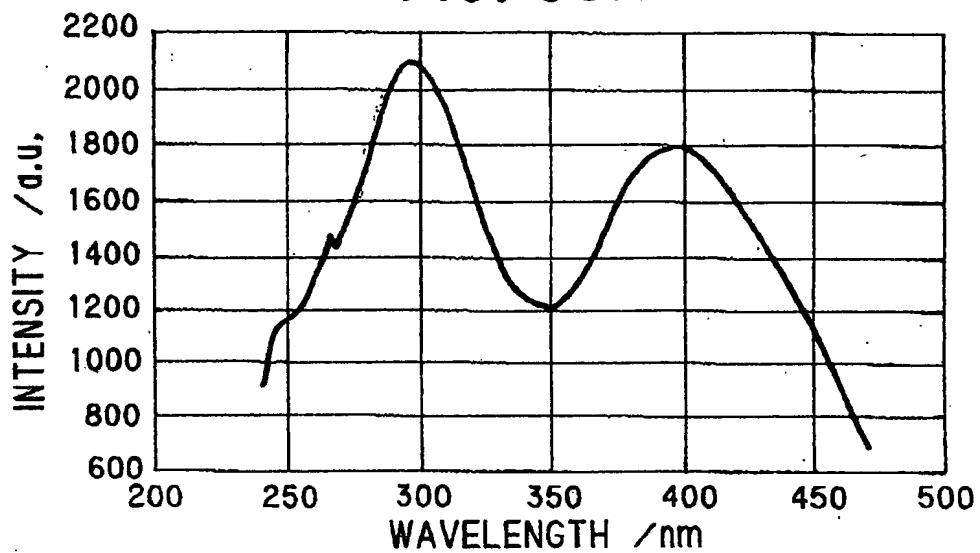


**FIG. 34B**



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**FIG. 35A**



**FIG. 35B**

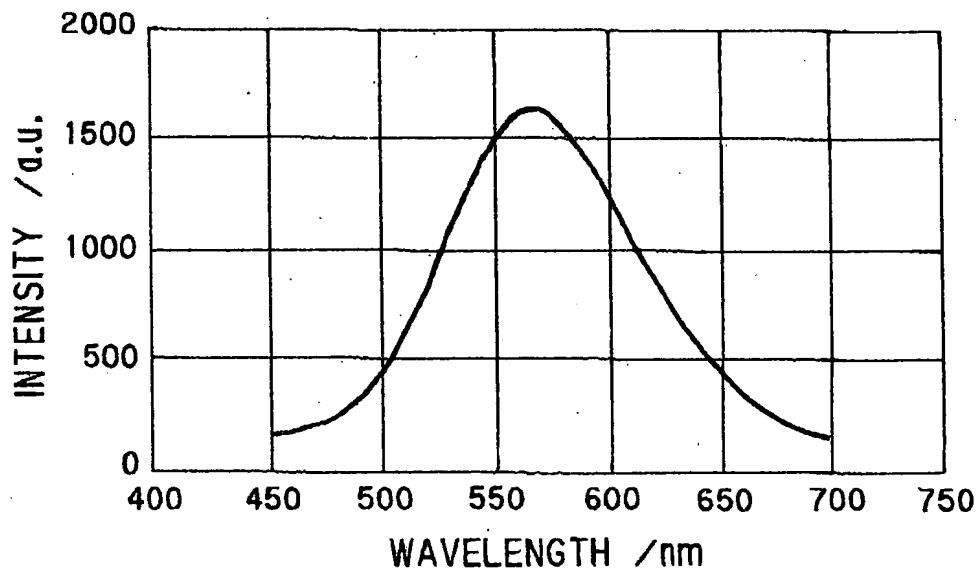


FIG. 36

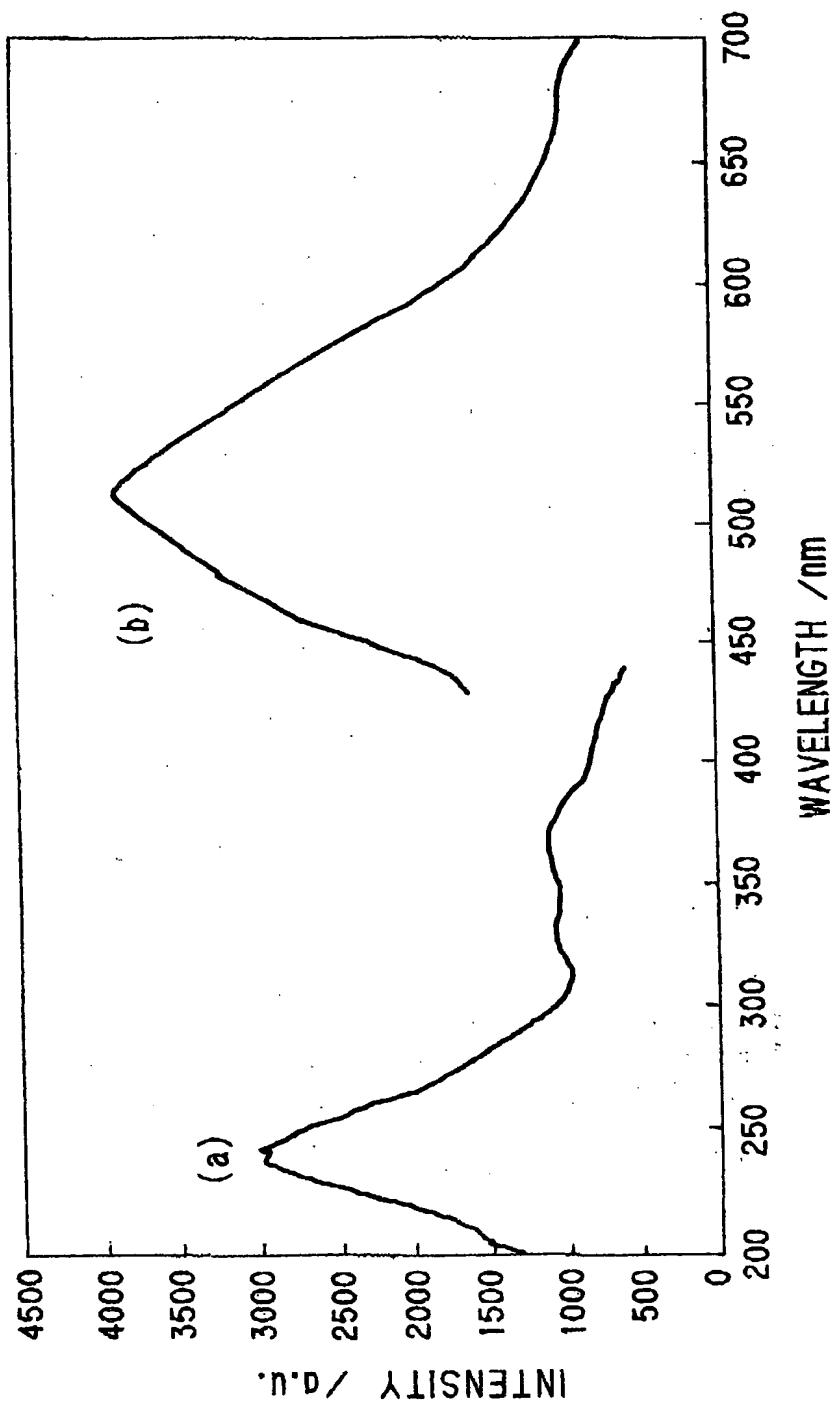
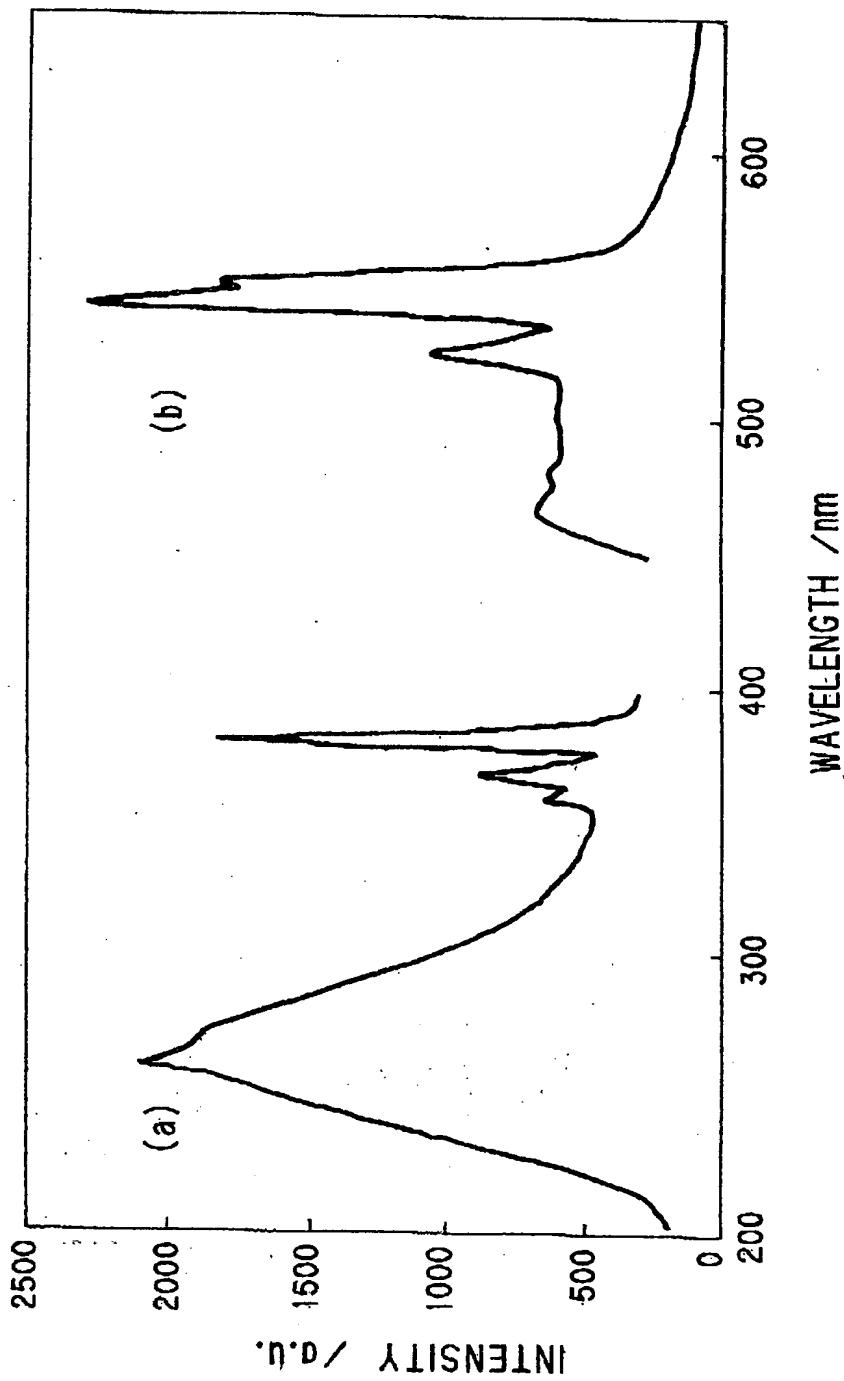


FIG. 37



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FIG. 38

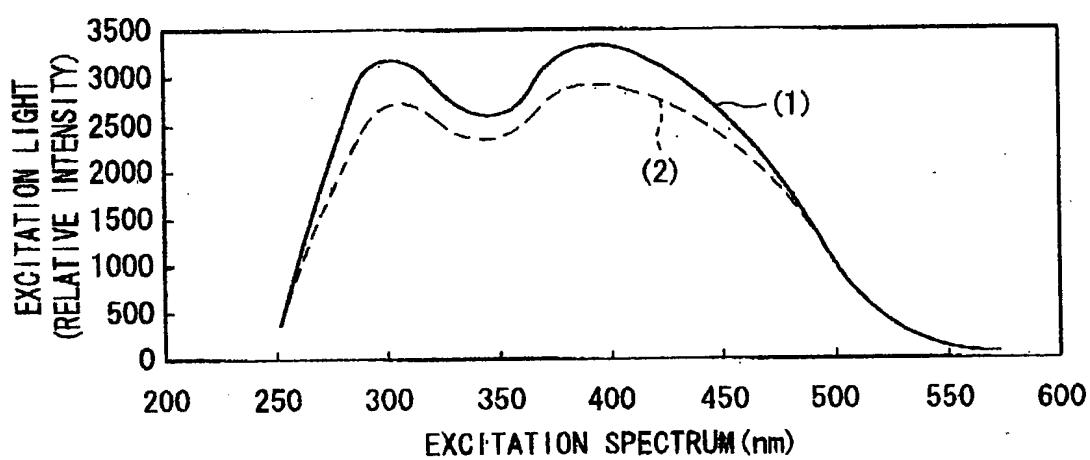


FIG. 39

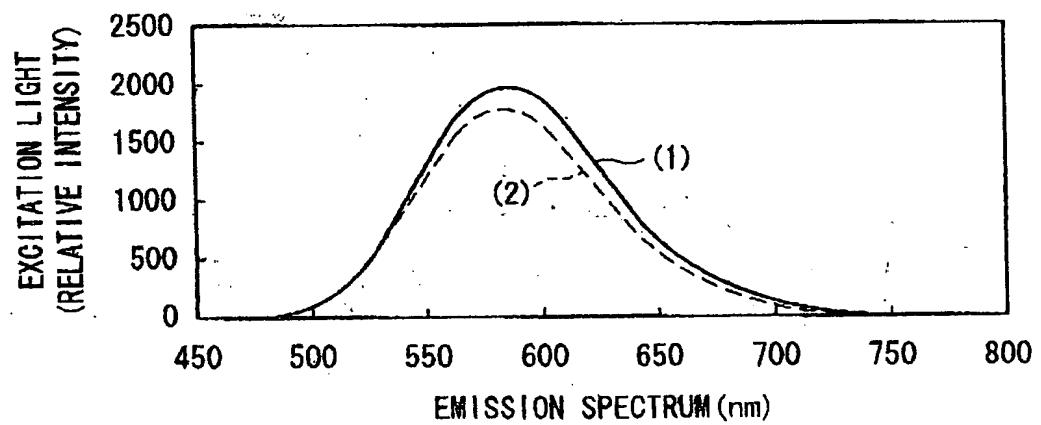


FIG. 40

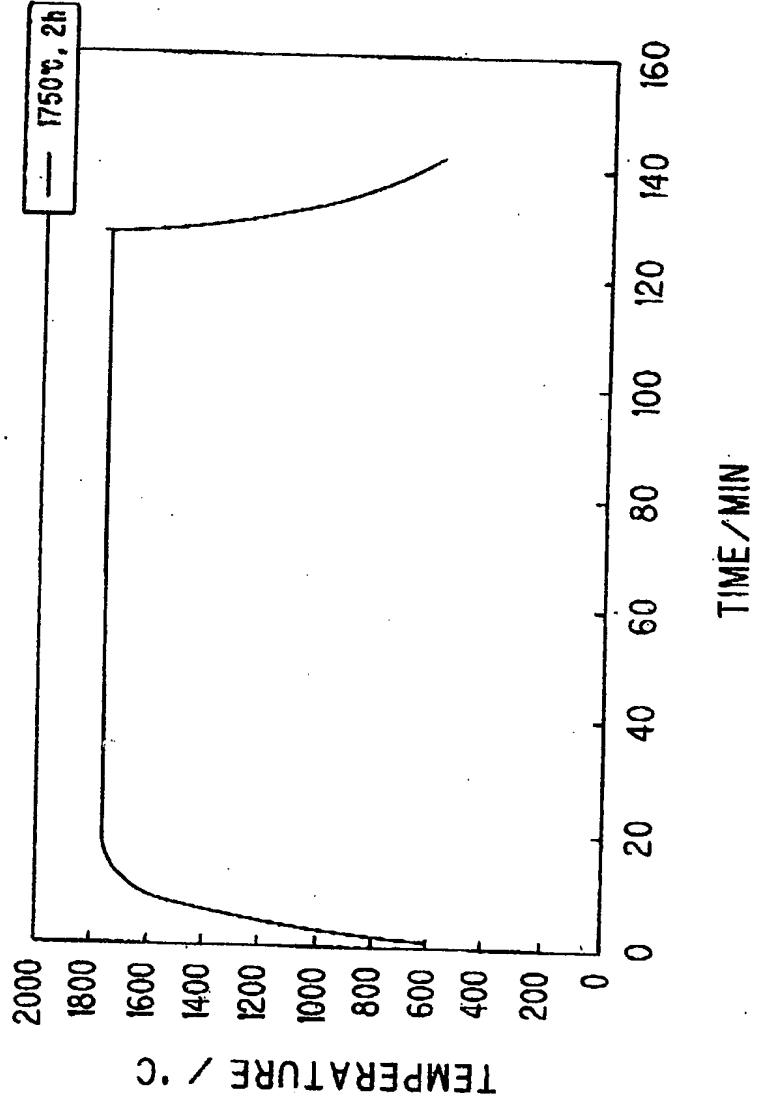


FIG. 41

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	A	B	C	D	E	F	G	H	I	J
*	3015	2010	1005	3030	2015	2010	1005	05025	05025	0505
CaO	11.6	8.3	3.1	9.7	7.9	11.3	6.1	2.2	3.26	3.2
Si <sub>3</sub> N <sub>4</sub>	29.4	42.9	63.6	22.2	39.1	42.9	63.6	79.0	79.0	75.9
AlN	52.9	42.9	27.3	55.6	44.6	42.9	27.3	15.8	15.8	17.2
Al <sub>2</sub> O <sub>3</sub>	0	0	0	5.6	2.4	0	0	0	0	0
Eu <sub>2</sub> O <sub>3</sub>	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.0	1.0
Eu/Ca	0.51	0.72	1.9	0.62	0.76	0.27	0.49	1.4	0.61	0.63
Eu %	34	42	66	38	43	21	33	57	38	39

	K	L	M	N
*	3015	2613	2010	2010
CaO	15.7	14.5	12.3	11.9
Si <sub>3</sub> N <sub>4</sub>	29.4	34.2	42.9	42.9
AlN	52.9	49.4	42.9	42.9
Al <sub>2</sub> O <sub>3</sub>	0	0	0	0
Eu <sub>2</sub> O <sub>3</sub>	1.0	1.0	1.0	1.2
Eu/Ca	0.13	0.14	0.16	0.20
Eu %	11	12	14	17

FIG. 42

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	A	B	C	D	E	F	G	H	I	J
**	3015	2010	1005	3030	2015	2010	1005	05025	05025	0505
Ca	3.3	2.0	0.6	2.9	1.9	2.7	1.2	0.4	0.5	0.5
Al	15.1	10.3	5.2	20.3	12.2	10.3	5.3	2.6	2.7	3.5
Si	25.2	30.8	36.6	20.2	28.9	30.9	36.7	39.7	39.8	38.9
Eu	1.7	1.4	1.2	1.8	1.5	0.7	0.6	0.5	0.3	0.3
O	5.9	4.1	2.3	10.8	5.9	3.8	2.0	1.1	1.1	1.9
N	48.7	51.4	54.1	43.9	49.5	51.5	54.2	55.6	55.7	54.8

	K	L	M	N
**	3015	2613	2010	2010
Ca	4.5	3.9	3.0	2.9
Al	15.2	13.3	10.3	10.3
Si	25.3	27.6	31.0	30.9
Eu	0.6	0.5	0.5	0.6
O	5.4	4.7	3.7	3.7
N	49.0	50.0	51.6	51.6

FIG. 43

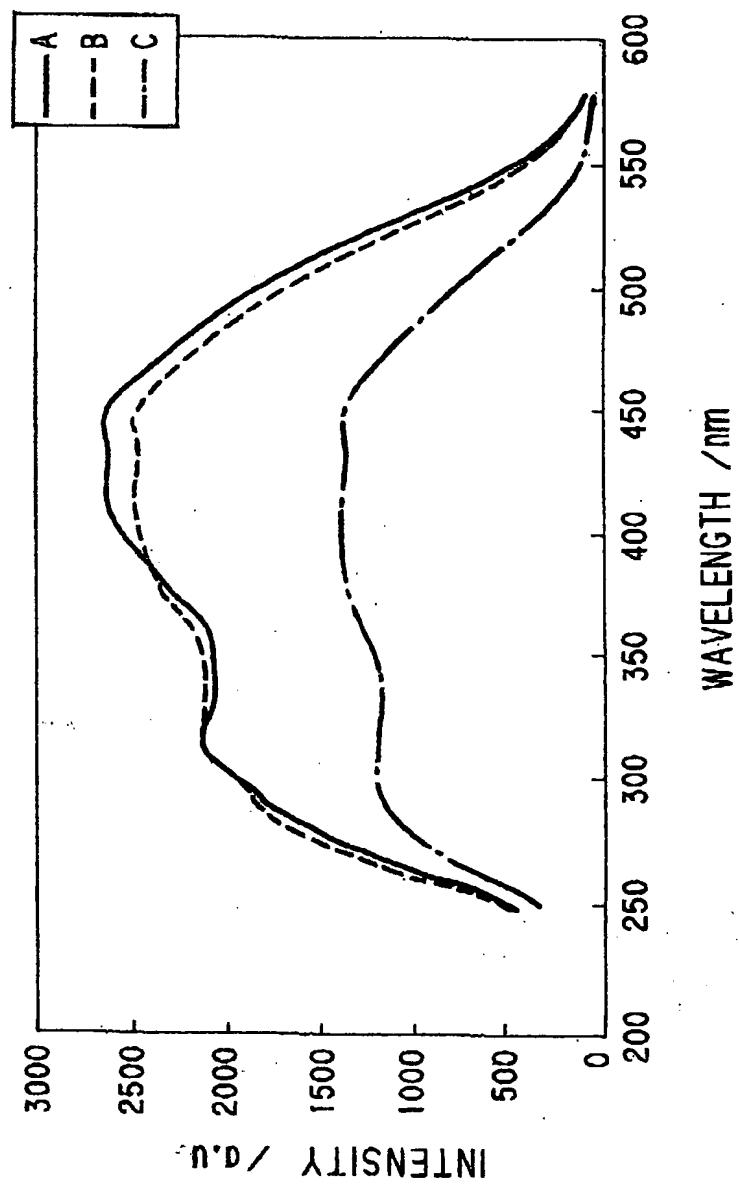


FIG. 44

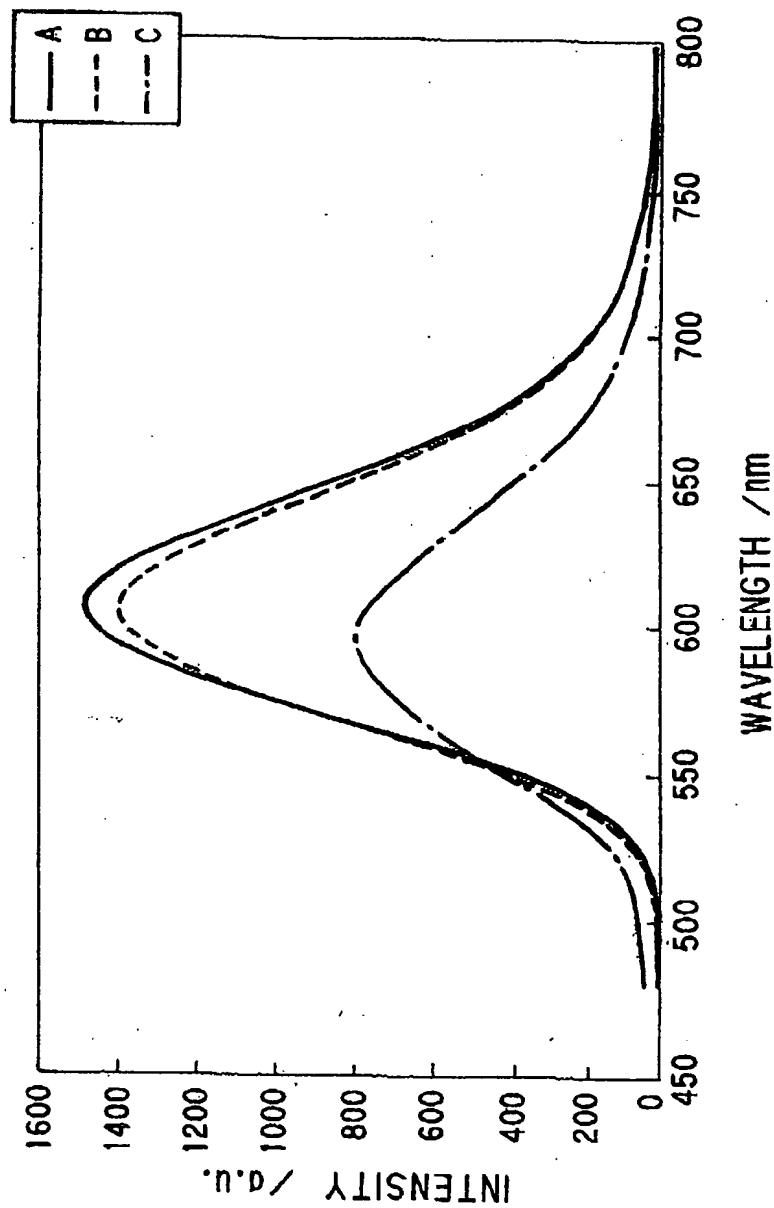


FIG. 45

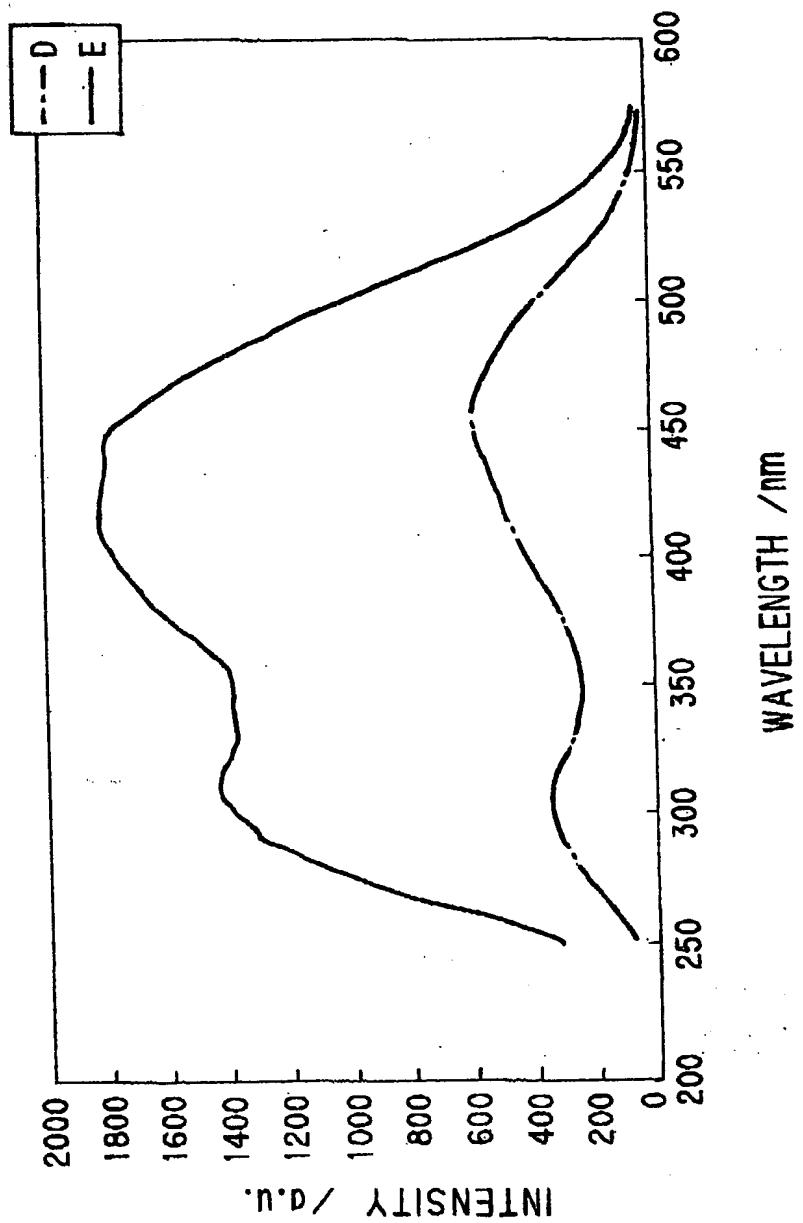


FIG. 46

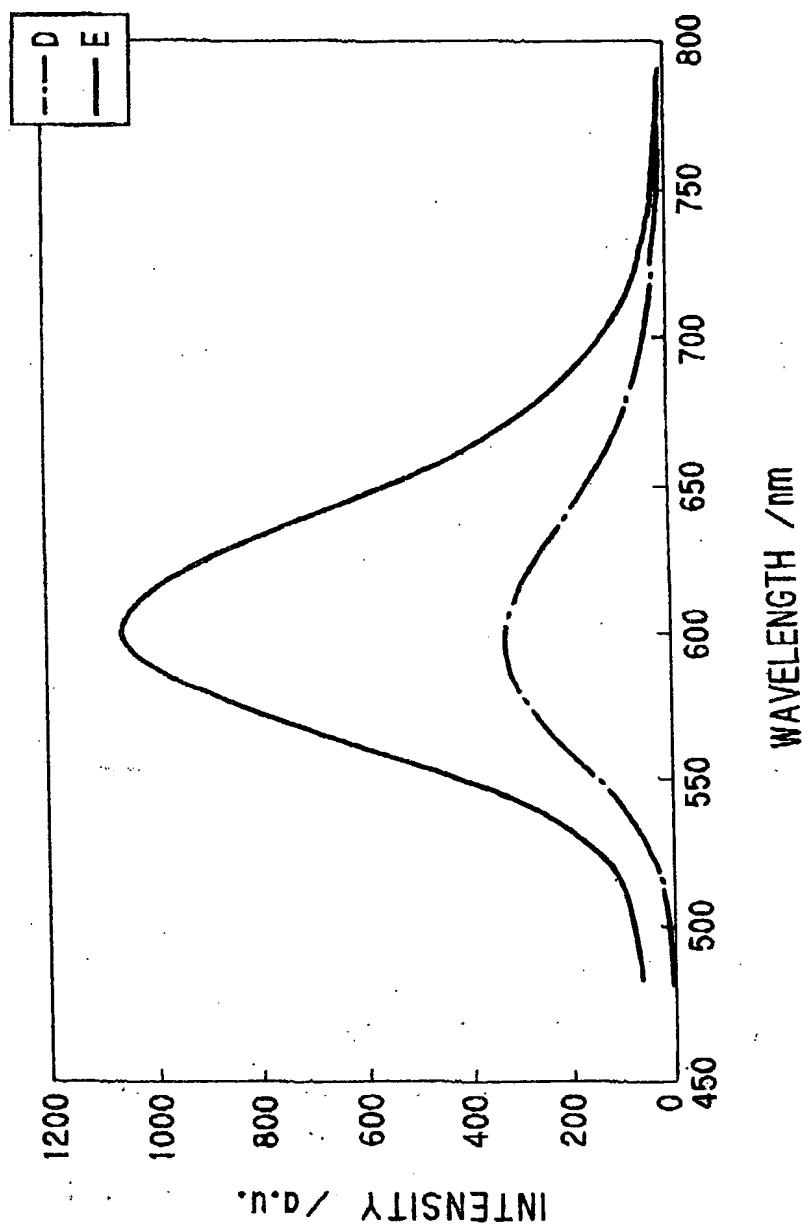


FIG. 47

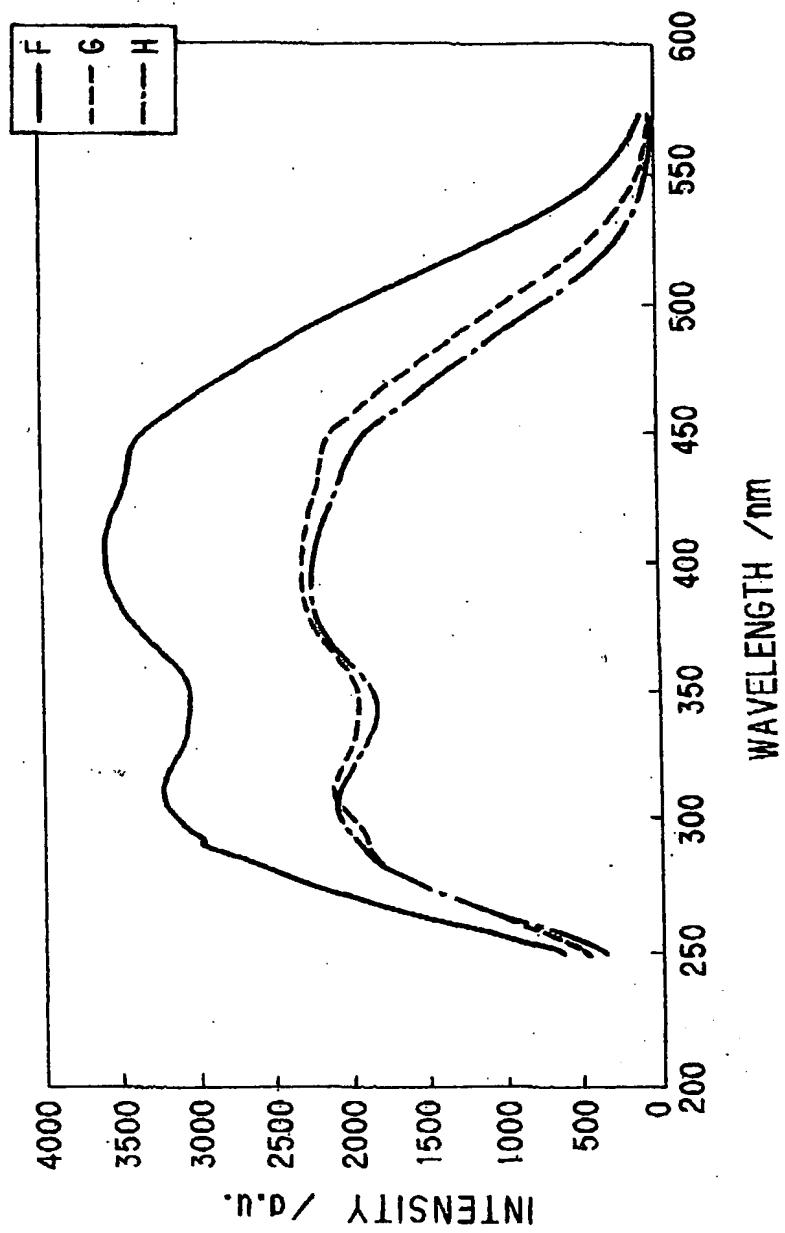


FIG. 48

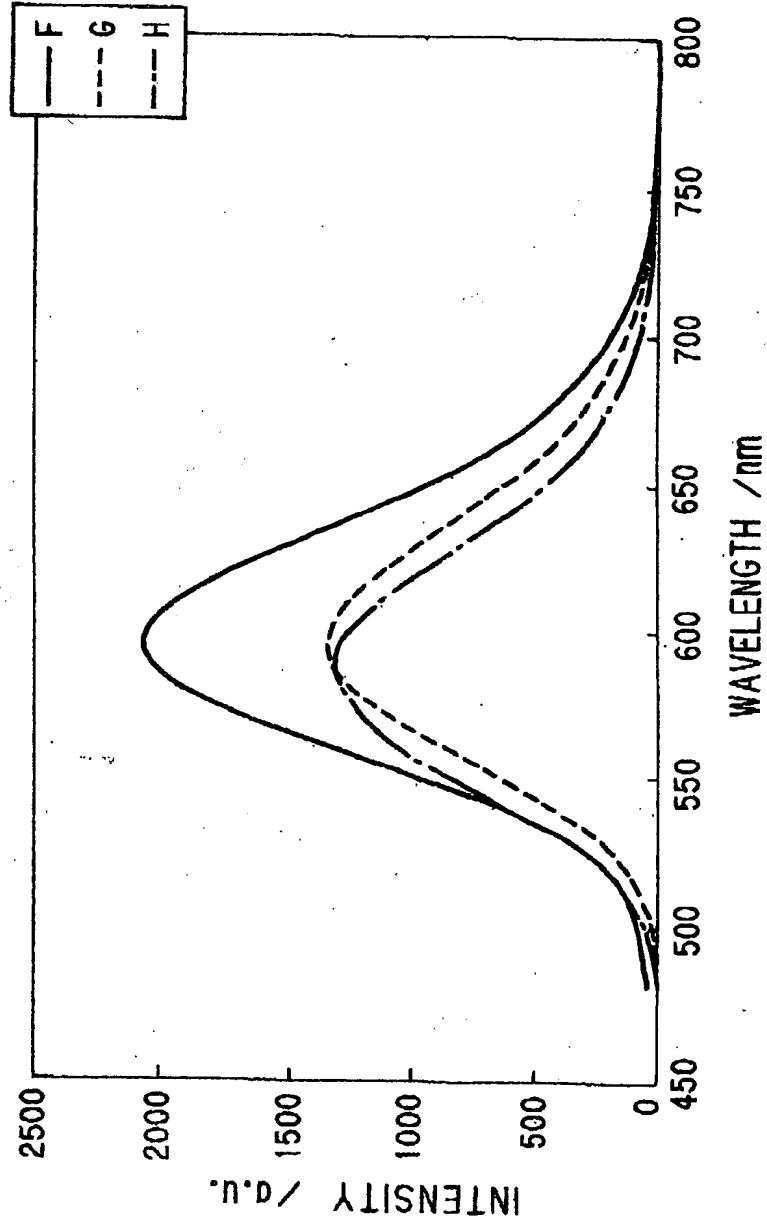


FIG. 49

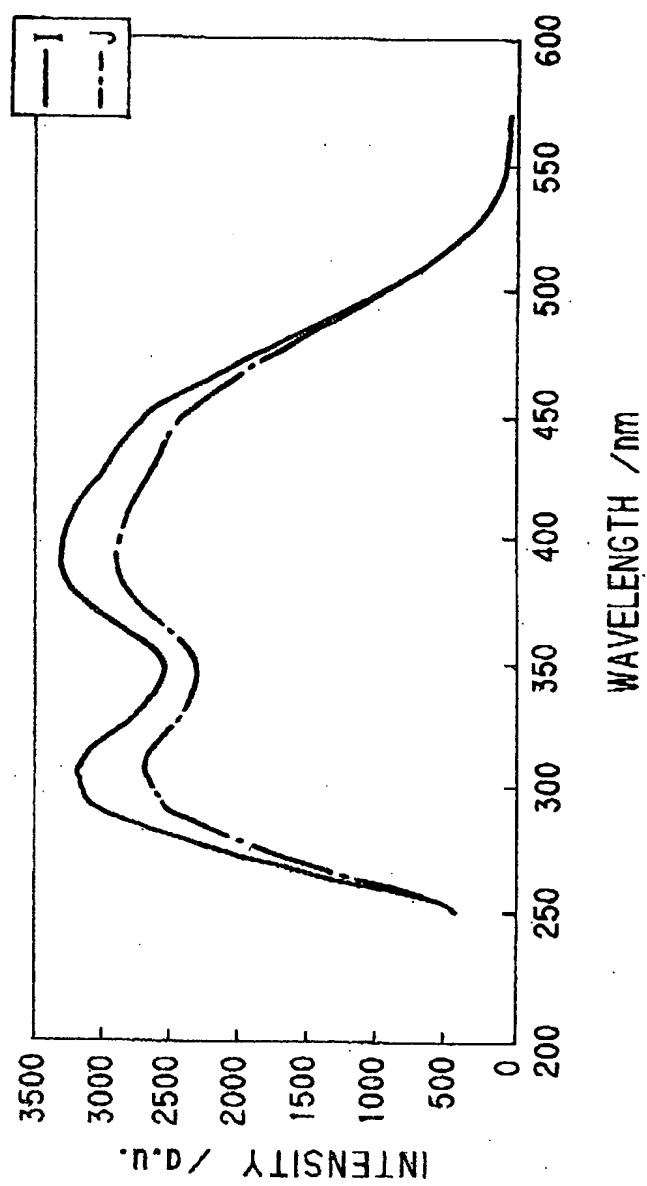


FIG. 50

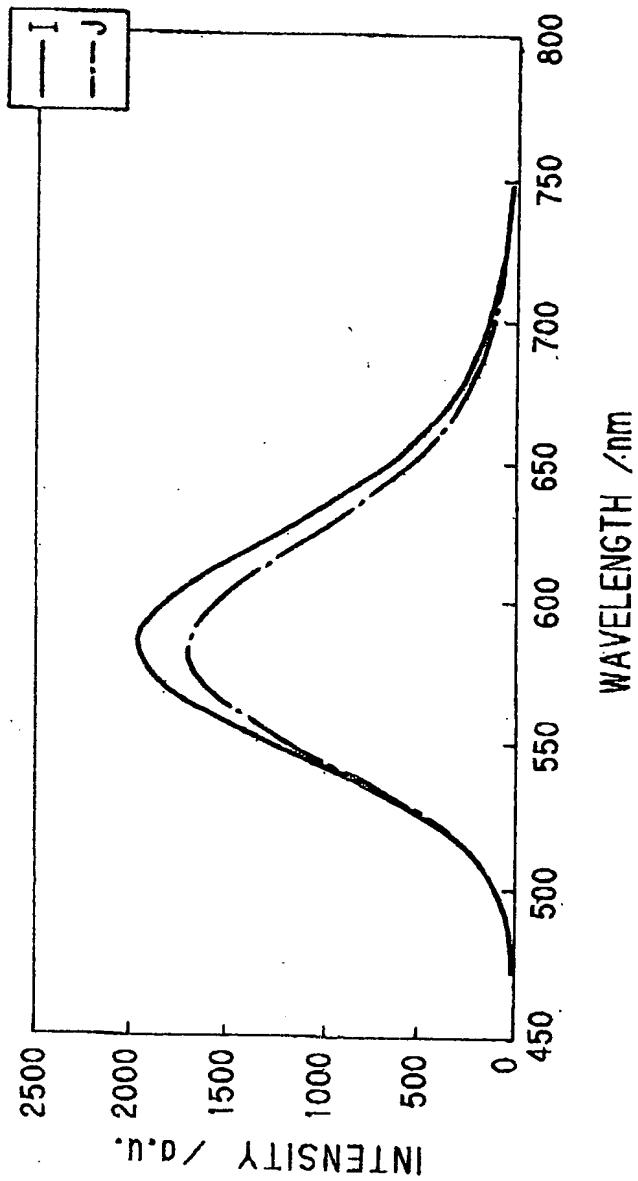


FIG. 51

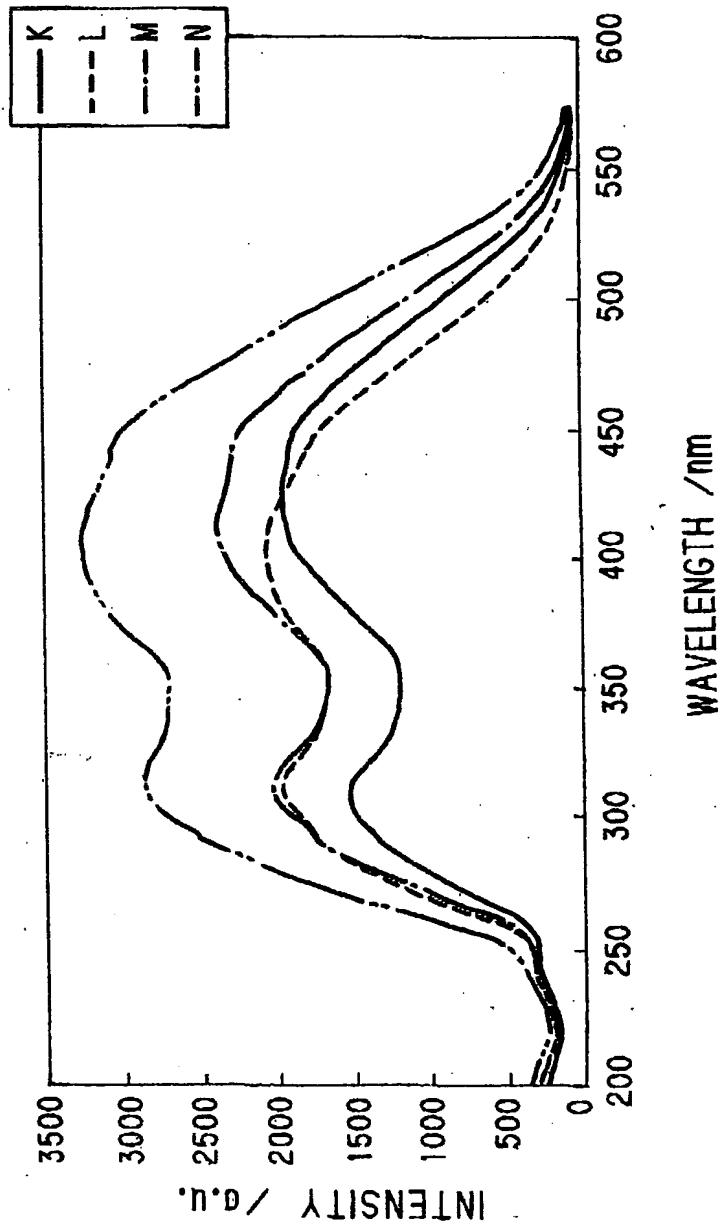


FIG. 52

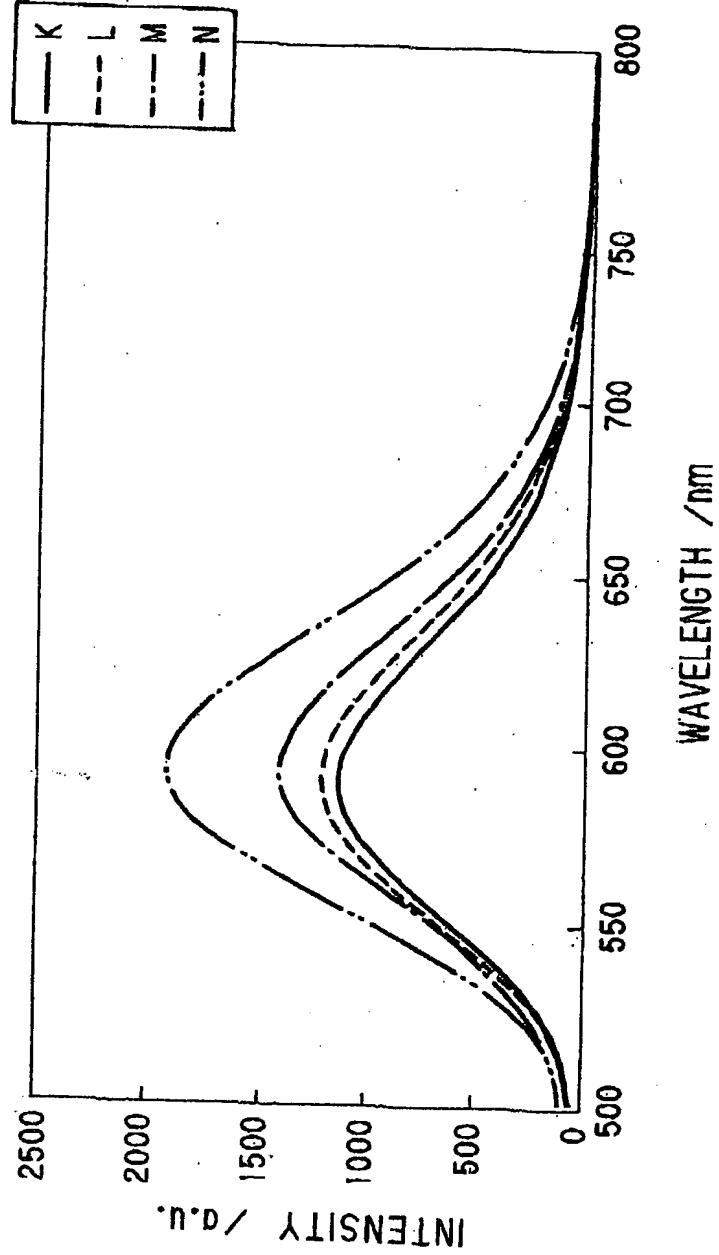


FIG. 53

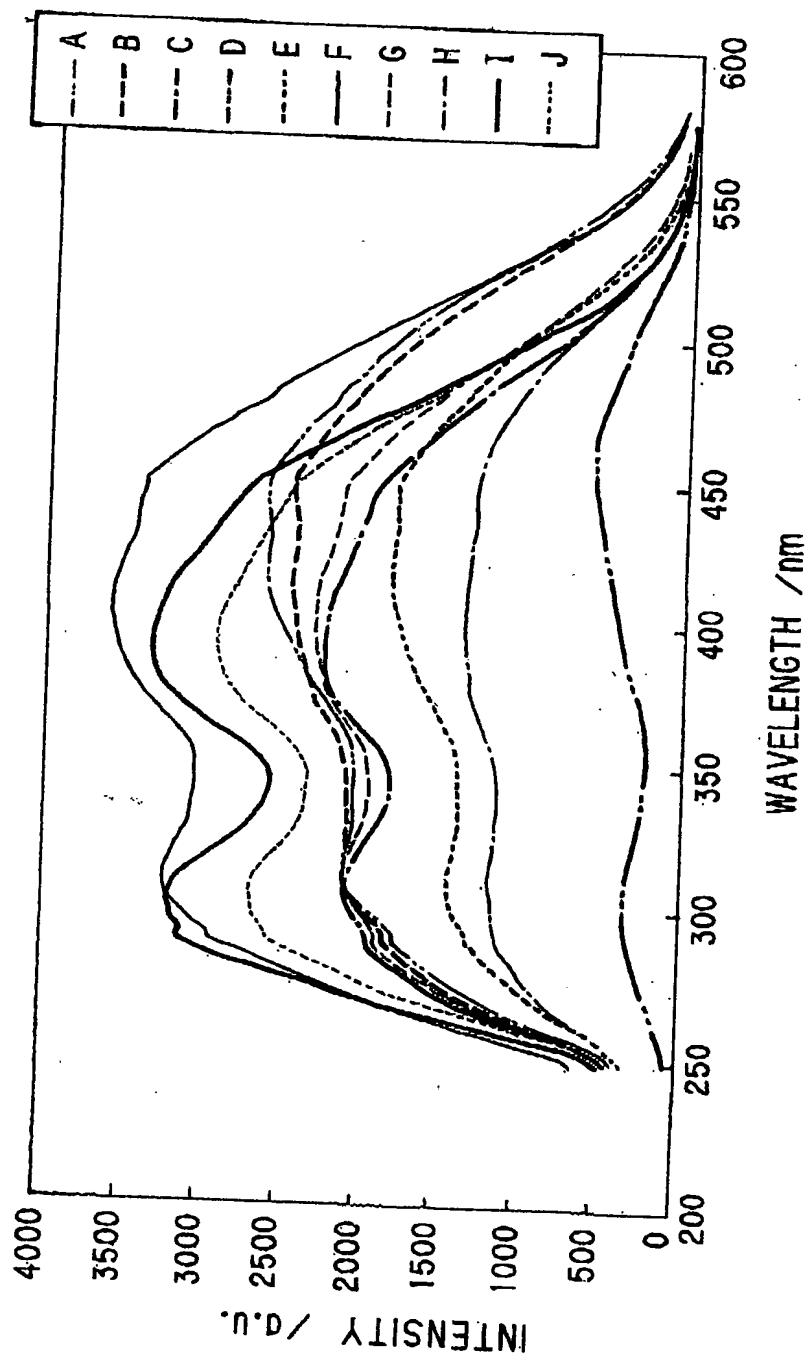


FIG. 54

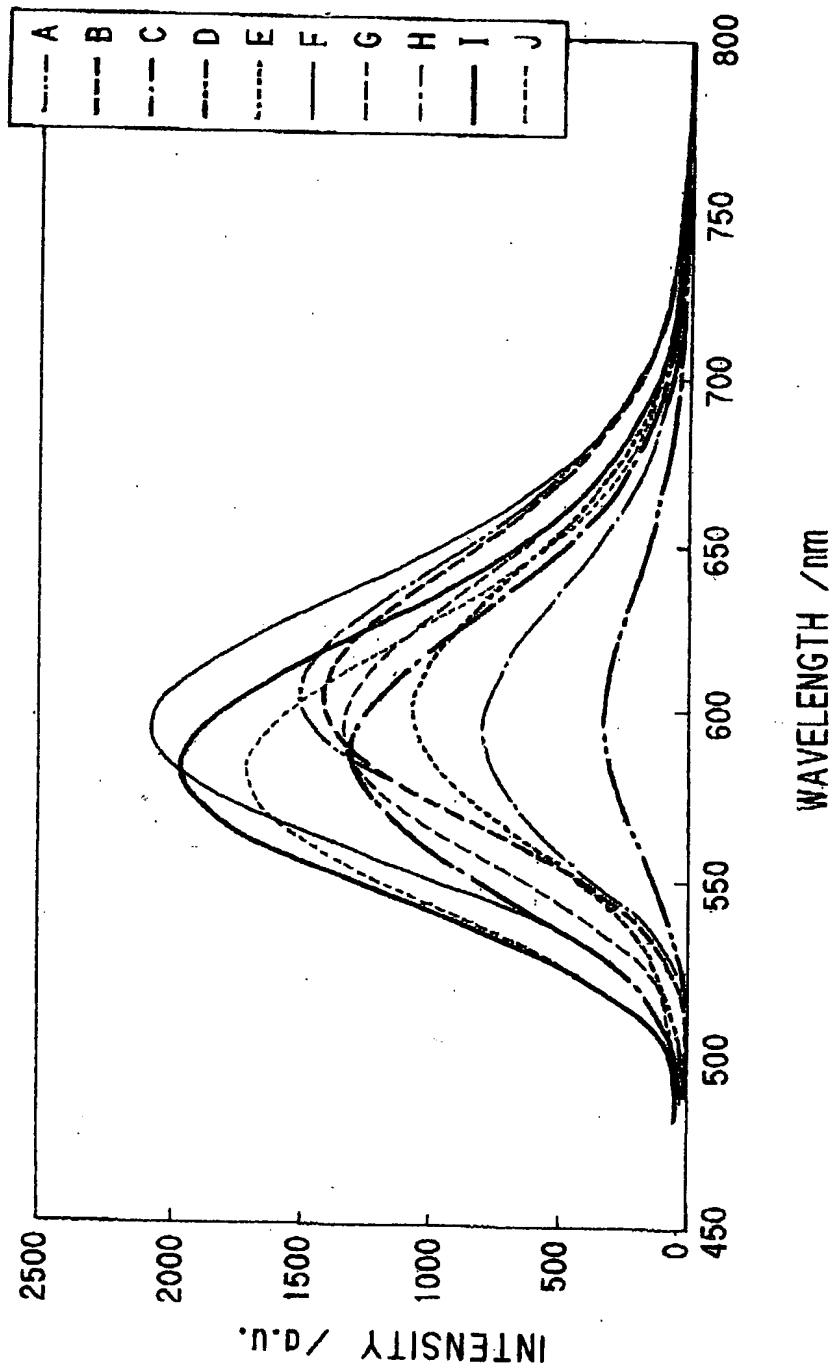
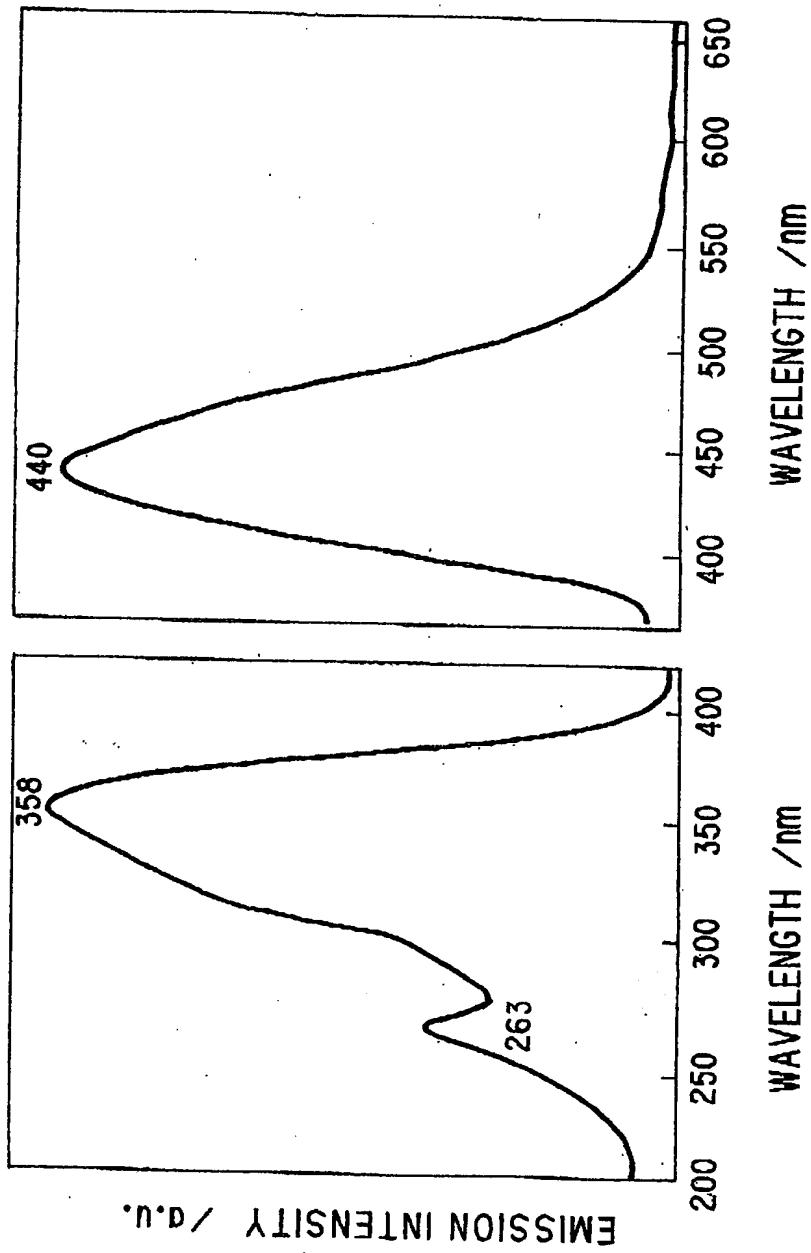


FIG. 55A  
FIG. 55B



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FIG. 56

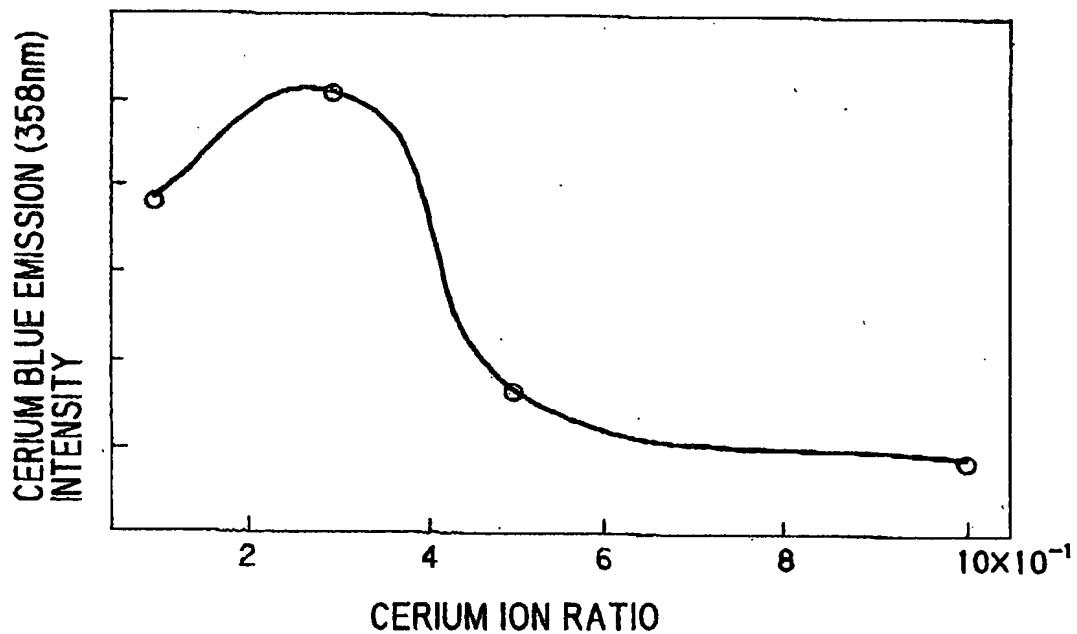


FIG. 57

